DOCUMENT RESUME

ED 436 660 CE 079 517

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TITLE Economics.
SPONS AGENCY Minnesota State Dept. of Children, Youth, and Families, International Falls.
PUB DATE 1999-00-00
NOTE 66p.
AVAILABLE FROM For full text: <http://www.abeonline.net>.
PUB TYPE Guides - Classroom - Teacher (052)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Adult Basic Education; Adult Literacy; Capitalism; Consumer Education; Course Content; *Economics; Economics Education; High School Equivalency Programs; Learning Activities; Literacy Education; Social Studies; Units of Study

ABSTRACT

This course presents basic economic concepts and explores issues such as how goods and services are produced and distributed, what affects costs and profits, and how wealth is spread around or concentrated. The course is designed to be used with students enrolled in an adult high school diploma program; course content is appropriate to meet social studies requirements. The course focuses on having students apply concepts to real life situations and analyze life situations for their relationship to the concepts presented. The course contains 10 lessons, each of which includes stories, examples, information sheets, activities, and assignments. The following 10 topics are covered: (1) exchange; (2) the marketplace; (3) market forces; (4) supply and demand; (5) market management; (6) the power of competition; (7) consumer choices; (8) what's the economy doing? Part 1; (9) what's the economy doing? Part 2; and (10) applying ideas and language from the course. (KC)

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ED 436 660

Economics

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About This Course

Information for Teachers

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This course presents basic economic concepts and explores such issues as how goods and services get produced and distributed, what affects costs and profits, and how wealth gets spread around or concentrated. The course was funded by a grant from the Minnesota Department of Children, Youth, and Families.

Target Population

The course was designed to be used with students enrolled in an adult high school diploma program; the content of the course could be appropriately applied to meet social studies requirements.

Course Objectives

This course introduces students to concepts and ideas in economics, such as exchange and self-interest, markets and choices, supply and demand, types of economies, competition, and economic indicators. The focus of assignments is to have students apply concepts to real life situations, or to analyze life situations for their relationship to the concepts presented in the course.

Lesson Outlines

A list of subheadings and a summary of the assignments

Lesson 1: Exchange

- Two Stories
- Economics Lessons
- Exchange
- Forms of Exchange
- Making the most of Exchange: Self-Interest
- Assignment (describe one experience learning about how people make economic choices)
- Assignment (explain terms)

Lesson 2: The Marketplace

- The Economic Web
- Going to Market
- Markets and Choices
- Assignment (analyze a market)
- Assignment (identify market choices)

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Lesson 3: Market Forces

Fall, 1973: A Market Story
Market Forces Seen in the Story
How Many Boyers are in the Market?
Supply and Demand: A Big Idea in Economics
Assignment (describe example of scarcity)
Assignment (describe example of supply and demand)

Lesson 4: Supply and Demand

The "Law of Supply and Demand"
Shifts in Demand
Shifts in Supply
Supply and Demand in Labor Markets
Bringing Some Order to Markets
Assignment (describe several purchasing choices, equivalents and substitutes)
Assignment (describe how price, personal preference, convenience, habit, etc. contributed to a particular purchasing decision)

Lesson 5: Market Management

From One Extreme . . .
To Another Extreme
Two Ends of a Market Management Scale
Elaborating the Continuum
The Big Problems
Assignment (read about and describe examples of centralized economy, free market economy, and mixed economy)
Assignment (analyze GNP)

Lesson 6: The Power of Competition

Competition
Ideal Competition
What Shapes Competition?
Workable Competition
The Price of Competion
Assignment (describe how sellers make services and products stand out)
Assignment (describe competition)

Lesson 7: Consumer Choices

Consumer Strategies
Comparison Shopping: The Basic Strategy
Not So Savvy Shoppers
Super Detectives Find Real Deals
Assignment (survey about consumer issues)
Assignment (comparison shopping)

Lesson 8: What's the Economy Doing? Part 1

Economic Indicators
Seeing How It's Measured
The Consumer Price Index

Lesson 9: What the Economy Doing? Part 2

Common Economic Indicators
Gross Domestic Product
Unemployment Reports
Stock Market Indicators
Assignment (examples of mass media reports based on economic indicators)

Lesson 10: Applying Ideas and Language From the Course

A Case From Everyday Business
Assignment (teaching concepts to another person)

Course Author

Rodger Kemp is an instructional designer and curriculum developer for Mindquest, an online high school completion program in Bloomington, MN. His experience includes free lance writing, designing computer based and distance learning programs, and teaching (at all levels from elementary through graduate school). He usually works at his home in New York antelecommutes and commutes to Mindquest's offices in Minnesota. He holds a Master's degree in English and an A.B.D. from the University of Minnesota. If you have comments or questions about the course, please contact Rodger at kempr@superior.net.

Economics

Lesson One

EXCHANGE

Two Stories

Maybe something like this has happened to you:

> On a workday morning a three-year-old girl is feeling a little unhappy and unsure of something as she sits at the breakfast table. Her mom is running a bit behind schedule and tells the girl to finish her breakfast because they have to get going.
>
> The girl drops her spoon on the floor and blurts out, "How come you have to go to work? You always go to work."
>
> The mom feels impatient for an instant, but knows it's a question that deserves an answer, so she says "Well I have to make a living, honey."
>
> The girl isn't consoled yet and says, "But why? Why do you have to go to work?"
>
> The mother tries again: "To make the money we need. Money for all the things we have to buy."

Or maybe something like this sounds familiar and plausible:

> An eight-year-old boy and a man are walking past the toy department of a discount store, on their way to the check-out counter. The boy suddenly veers off down an aisle, drops to his knees in front of a shelf, and grabs a box from a large stack.
>
> "Can I get this? Can I?" he says to the man.
>
> "No," the man says. Just that: No.
>
> The boy looks carefully at the box, as if memorizing it, then puts it back on the shelf. Barely outloud and to himself he says "I know, I know. You're not made of money."
>
> "What did you say?" the man asks with a sharp edge on his voice.
>
> "Nothing," the boy says. Just that: Nothing.

Economics Lessons

From the kids' point of view, times like these are among their first experiences with some of realities of adult life, realities they will continue to face throughout their lives. Informally and indirectly the kids in these scenarios are learning lessons such as these:

- Most adults work, one way or another, in order to earn money to buy the things they need and want
- Most adults don't earn enough money to buy all or even most things they might want. Many don't earn enough for all the things they need
- Adults regularly face choices about how to earn and spend.

These can be called **economics lessons** because they're all part of a large field of study that goes by the name economics. As a field, economics takes in a lot of territory and deals with questions in many different ways, some of them highly abstract and mathematical.

Basic economics, though, deals with fundamental and vitally important topics, among them how people make a living, how goods and services get produced and distributed, what affects costs and profits, and how wealth gets spread around or concentrated.

In this and the following lessons you'll examine a few major ideas that people use to think about economics. As you learn more about these ideas you'll probably notice more about debates over some of them.

Exchange

One very basic idea is that people meet many of their needs and desires through **exchanging** what they have for what someone else has. If you can remember trading clothes, baseball cards, comic books, candy, stickers, or just about anything of value with other kids, you know the basics of exchange. You give something of yours for something from another person. Maybe you and your trading partner did some negotiating, like "I'll give you these two t-shirts for that pair of shorts." "Well, give me the blue t-shirt instead of the yellow one, and OK."

Without the chance to exchange, people would have to grow, find, make, build, or otherwise produce everything they use. In other words, they'd have to be literally and totally self-sufficient. Now, some people are much closer to literally self-sufficient than others. Through choice or necessity, some people grow their own food, make their own clothing from material they also make, build their own homes, treat illness themselves, teach their own children. But it's hard to imagine people being so completely self-sufficient that they never exchange with others.

At the opposite end of the scale, there are people who exchange for almost everything they use. They themselves grow no food, build nothing, make nothing, have others care for their household and children, have others make decisions about what they own, and maybe even never go to a workplace of any kind.

As usual, most people are somewhere between these extremes. Most adults do their own housekeeping, cooking, and child-rearing; most work outside the home for wages, salary, or other payment; some raise part of the food they eat in gardens or on farms; some do repairs and maintenance but few build their own homes or cars. Still when it comes to basic survival needs like food, shelter, clothing, or medical care, most adults in the United States depend heavily on exchange.

Forms of Exchange

Exchange takes place in different ways, but in most societies people use money as **a medium of exchange**. When you work for someone, you provide your time, effort, skill, and experience to your employer in exchange for benefits - mostly in the form of money you're paid as wages, salary, or benefits. You use the money to pay for the

things you need and want. Money itself can be in many forms like currency, coin, personal checks, money orders, even I.O.U.s. Increasingly, people use money in "plastic" form: credit and debit cards for making purchases or cash cards to withdraw money from an A.T.M. - all of which use electronic systems to make the exchange.

Exchanges without money, or along with money, still take place though. When someone "trades-in" a car for a different one, part of the buying price is covered by the value of the trade-in. Once in awhile people still trade houses and land with each other. For instance, you might see a classified ad in a newspaper that reads "Will trade home on Green Lake for house or apartment of equal value in St. Paul." Kids still do a lot of trading that doesn't involve money, as the examples at the beginning of this section suggest. And some people trade their services directly, for instance when someone gets a free apartment in exchange for being the caretaker of a building. Exchanges without any money at all go by the name **bartering**, and it's a method people have used since the earliest days of human society.

But using money is so deeply engrained that most of us almost automatically use it to think about the value of things. For instance, both the advertiser and readers of the newspaper ad mentioned in the last paragraph - about trading one home for another - probably would use a "dollar value" to think about whether a given trade was good for them. They'd think to themselves, "The place on Green Lake is worth about $90,000 and the one is St. Paul is worth at least $100,000 Ö " and use that reasoning to help make a decision.

When people think of things that are extraordinarily important to them they sometimes dramatize the money value and say things like "no amount of money could make me give this up" or "being with you is worth millions to me" or "her art is priceless." Such statements put a twist on everyday thought and language where most things do seem to have a money value. And in everyday life, people use money or the equivalent to exchange things with others.

Making the Most of an Exchange: Self-Interest

An exchange automatically involves at least two people and sometimes many more than that. A simple exchange might be a kid who mows the lawn for the elderly woman who lives next door. A more complicated exchange might be a labor contract between a union representing thousands of employees and a very large corporation. But in most exchanges - maybe all - the people involved want the best possible terms for themselves. In other words, people want the best deal they can get.

Our everyday language is loaded with words and phrases for characterizing exchanges: *good deal, bargain, best value, worth the money, good value* and others label a positive exchange. *Rip-off, bad deal, total loss, losing proposition, taken,* and others label a negative exchange. People good at making exchanges that benefit themselves might be called *smart dealers, good shoppers,* or *tough bargainers.* People not so good at making exchanges might be called *losers, babes in the woods,* or *fools,* as in the proverb "A fool and his money are soon parted."

Economists recognize that everyone involved in an exchange is interested in making the best possible deal. This principle goes by the name **self-interest** and it's another key idea in economics.

You can see the idea in action during almost any transaction (a word that means about the same as exchange). Take a common but pretty complicated case, buying and selling a house. The buyers probably want the lowest possible price, the most convenient possession date for them, the lowest possible interest rate, and so on. The sellers probably want the highest possible price, the most convenient closing date for them, no "points" of pre-paid interest charged to them, and so on. Rarely does one side or the other get everything it wants out of a complicated exchange like this. Compromise is virtually inevitable.

By the time they're adults, most of us have learned that other people take care of themselves - an economist might say "protect their interests" - when doing business. A little kid might think that grocery stores give away food, service stations give away gas, and television programming is free. Adults know otherwise; they know other people provide this things for some kind of price that works out for them.

One of the most famous explanations of self-interest was made by Adam Smith, a Scottish philosopher who wrote

during the 18th Century. His book about "the wealth of nations" includes this paragraph:

> "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinners but from their regard to their own interest. We address ourselves not to their humanity but to their self love, and never talk to them of our own necessities but of their advantages."

This may sound cold and calculating, and sometimes it is. But the butcher, brewer, and baker that Adam Smith wrote about also want their customers to come back again. They have to satisfy the customer's self-interest in order to do future business with them. This balance among the interests of all kinds of people gets complicated and hard to see, but it's one of the things economists try to describe and understand.

Assignment

Part One

The first part of the lesson focused on some of the informal ways most people get introduced to economic realities or ideas. Most of the examples were drawn from kids' experience. So this assignment asks you to use one of the following approaches:

- **Recall one or more experiences you had when you were younger**
- **Recall one or more experiences you observed a young person having**

In either case, recall experience(s) from which you - or the person you observed - learned something about how people make their livings, manage their money, make economic choices, or other economic ideas.

Describe the who, where, and when of the experiences but then focus on what was learned and how the learning seemed to happen. Finally, add some comments about your reaction to the learning.

Part Two

Pick any two of the terms at the end of this section. For each one of them do the following:

- Write an explanation of the economic meaning of the term - as you understand it from the lesson. For example: Barter refers to the direct exchange of goods or services without using money in any form.
- Write two sentences using the term. For example: I won't barter with you.
- Find the word used somewhere else such as a newspaper, magazine, broadcast, or in a conversation. Quote the sentence and tell where you found it. For example: "The New York Yankees and three other teams will try to barter for the right to sign Roger Clemens to a contract." On the 10:00pm sports news, Channel 11, December 8.

Here are the terms you can write about:

Exchange
Medium of Exchange

Negotiating an Exchange
Self-interest
Self-sufficient
Value
Dollar value
Compromise

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Lesson Two

THE MARKETPLACE

The Economic Web

The last lesson ended with the idea of **self-interest** and claimed that many exchanges include some compromise on who gets what out of a transaction. But nowadays in the so-called developed world, most transactions don't take place directly between a consumer and producer. Food is processed, packaged, and distributed, then eventually bought in a store; new cars are assembled in many places, from parts built in many different places, and eventually bought from a dealer; apartment buildings might be built by one company, using several private contractors, then purchased by a group of investors who hire the managers or caretakers who rent out apartments. The people who eat the food, drive the cars, and live in the apartments are the consumers or end-users in a web that includes many others who make, distribute, market, sell, and service goods.

Going to Market

The web of people, materials, and other resources needed to supply end-users can be very complex. Altogether, these elements can be called **the market** or **the marketplace** for some product or service. Think about what might go into the market for one category of food: dairy products.

Dairy products are foods based on milk - in many parts of the world, including the U.S., milk from cows (and not so much from goats or other animals). The dairy market includes consumers or end-users who buy and eventually consume fluid milk, cheese, butter, yogurt, ice cream or other products found in a retail store. The basic product comes from cows, which are fed, housed, and otherwise taken care of by people who milk them. On places ranging from small farms to large factory-like installations, the cows and people who work with them are the production part of the market. Many other elements sit between and around both the retail and production parts of the dairy market: there are trucks that pick up raw milk at a dairy and transport it to a processing plant; processing plants that pasteurize fluid milk and make other products, then package it; distribution companies that sell packaged products to retail stores; retail stores that stock and sell the products.

On top of all this, the dairy product marketplace overlaps with all kinds of other markets: grain raised to feed the cows, equipment used to run a dairy or grain farm, fuel used for transportation equipment, bank loans to buy equipment, advertising specialists to promote buying dairy products. Each of those have their own markets; each market may be connected to others.

Every market includes people who do the work at a given step. In the case of the dairy product market there are people who care for the cows, keep the records, drive the trucks, process the milk, buy the products from processors, stock the shelves, run the check-out counter, and so on. Lumped together, all these workers make up a vast and crucial segment of their own: the **labor market**.

Markets haven't always been quite so complex and inter-connected. The current idea of a market is based on the traditional marketplaces where producers - say farmers - bring products to a place where buyers meet them, typically a town square. In many American towns and cities there are active farmers' markets yet today; in other parts of the world, traditional markets are main centers of exchange. Cities around the world have histories as marketplaces and sometimes a city develops a special strength in one or a few kinds of markets. London, New York, Hong Kong and Tokyo all have reputations for being financial centers with specialties like banking, stock and bond trading, investment firms, and so on. Los Angeles has the reputation for being a center for entertainment and communications business. Chicago and Buenos Aires historically have been centers for marketing grain, cattle, and other agricultural commodities.

Today economists and business people talk a lot about "world markets," by which they mean markets that cross national and regional boundaries. A computer like the one you use, for instance, may have microprocessors made in the United States, use other components manufactured in Singapore, be assembled in Korea, and be distributed all over the world. This so-called "market globalization" has all kinds of economic and social results, just one of them being where employers go to get the best deal on labor costs.

For all the talk about world markets, there still are many smaller, even local markets. Take the labor market - the supply and demand for employees. At the time this material was written, the summer of 1998, the United States had what's called a tight labor market. One indicator of tightness is a low unemployment rate - that is, the percentage of people looking for jobs who still are unemployed. In the summer of 1998 the unemployment rate for the entire nation was reported at around 4.4%. At the same time, the rate for the state of Minnesota was reported as 2.8%, even lower than the country as a whole. Yet in low-income, inner-city neighborhoods of Minneapolis and St. Paul, Minnesota unemployment was 10% or higher - sometimes much higher.

Similar situations apply to other markets, too. Housing markets - home sales and apartment rentals - vary widely from one location to another. In some places, reasonably priced houses might sell in a matter of two or three days after coming on the market. In other locations, houses may be on the market for two or three years without a single offer to buy. As common sense would tell you, housing markets might be influenced a great deal by labor markets. When people have jobs they're much more likely to have the money and confidence to think about buying a home or getting a better apartment.

Markets and Choices

Markets almost always seem to give people choices, often a vast and bewildering number of them. Consider just a few common examples:

- Think of people in the market for aspirin. How do they choose which aspirin to buy? Consumer advisers might tell you that all aspirin is identical. That is, the active ingredient is chemically the same no matter what brand and the amount per tablet is standard (325 grains). If that's so, why doesn't everyone choose the cheapest aspirin? Well, because the market provides and promotes other choices: aspirin with caffeine (which is supposed to make it work faster), with starch coatings (which is supposed to prevent upset stomach), in capsules instead of tablets (which is supposed to make it easier to swallow), in smaller or larger doses (which is supposed to be more convenient and accurate) or aspirin with a well-known brand name (which is supposed to make it more trustworthy all the way around).

- People in the job market may have more than one offer. How do they choose which one to take? How much they're paid is obviously a major consideration, but many other elements might affect the decision: additional benefits received, how much time and money it takes to get to work and back, what hours are worked, chances for promotion or raises, who co-workers are, what the supervisors are like, how interesting the work is, and so on.

- People with very low incomes often face very difficult choices. For instance, an elderly person might have a drug prescribed, say for high blood pressure, but not have the money to pay for it without cutting expenses somewhere else, say food or telephone service or rent. From a market point of view, such a person has to choose which market to be in. And that's a harsh, harsh choice to face.

(Side bar: There's even an old rock and roll song that has something to say about making choices. The Rollingstones do a song that says "You can't always get what you want" but "If you try real hard, sometimes you can get what you need." Before making it big with the 'Stones Mick Jagger was a student at the London School of Economics. Maybe the song and his schooling are related.)

Economists often pay close attention to the choices people make while making exchanges or transactions within a market. They do this to understand some of the factors or **market forces** that influence choices.

Assignment

Part One

Using the example of dairy products, this section stressed that nowadays markets for most products involve connections among producers, distributors, sellers, and consumers.

Pick another product or group of products as an additional example. Write a short account - one to three paragraphs, for instance - of that market, in which you identify examples of producers, distributors, sellers, and consumers. Also comment on one or two other markets this one might connect with.

For example, you could write about the market for personal computer systems and identify three or four companies that make them, tell how they're distributed to sellers, name some businesses that sell them, and comment on different groups of buyers. Then you could comment on the connections to markets for software, office furniture, and telephone service.

Pick any example you want to write about. Here are some suggestions you might consider:

- Sports utility vehicles
- Frozen pizza
- Hot pizza
- Big screen movies
- Baby food
- Organic vegetables
- Paper towels
- Television sets
- Plywood
- Gasoline

Part Two

This section also introduced the idea that most markets offer consumers some kind of choice. For example, consumers can choose from many different forms of aspirin, each form having (or claiming to have) some advantage over others.

Pick a market whose choices you understand pr[illegible]y well. Describe three or four choices available in that market and report what advantage each choice is supposed to provide. Explain your opinion about those supposed advantages.

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Lesson Three

MARKET FORCES

Fall, 1973: A Market Story

During the summer of 1973 in the United States gasoline cost 35 to 40 cents per gallon. A brand new half-ton pickup cost around $4,000. On the average, cars manufactured in the U.S. got 13 miles per gallon of fuel. Crude oil, the raw material for gasoline and many other products, sold for about $3.40 per barrel.

Beginning in the fall of that year, many things started to change. Soon U.S. gasoline cost close to $1.00 per gallon, that new pickup was $7,000 or more, a push was on to make U.S. cars average 18 to 20 miles per gallon. Crude oil prices were up to $15 per barrel. Within a couple of years crude oil prices reached $34 per barrel.

This rapid increase in the cost of crude oil - also called petroleum - had enormous consequences for almost everyone in the world. That is, anyone who used petroleum products, either directly or indirectly, paid more for them.

Many products depend on petroleum as raw material. Gasoline, diesel fuel, jet fuel, kerosene, heating oil, and paraffin all start as petroleum. So do many fertilizers, plastics, solvents, and industrial chemicals. That meant costs went up for anyone who drives a car, takes a bus or airplane, buys products shipped by trucks or ships, heats or cooks with oil or propane, uses electricity generated by oil powered generators, buys food grown using synthetic fertilizers. Well, you get the idea: almost everyone.

Not only that. The cost of everything went higher, or it seemed that way. Houses and apartments, heat and hot water, appliances and tools, clothes and shoes. Everything, or almost everything, cost ten or fifteen percent more than it did a year earlier. On the average, wages and salaries went higher too, but not as fast nor as high as the price of other things.

What happened in the fall of 1973 to trigger all these changes? Well, many different things started happening that fall, but most people who study the period say it started with the oil market.

The beginnings went like this: Several countries that produce a lot of the world's oil had decided to cooperate with each other in a group called the Organization of Petroleum Exporting Countries, known as OPEC, for short. OPEC members wanted to influence the price and distribution of oil to get the best possible deal for themselves. Many - but not all - OPEC members are Middle East nations like Saudi Arabia, Kuwait, Iran, Iraq, United Arab Emirates, and Libya that all happen to be political adversaries of Israel.

Since it started in 1960, OPEC had been working at increasing its members' income from oil exports. Their income had gone up slowly but not very much for several years. Then in October of 1973, OPEC decided its members would not sell oil to countries that supported Israel openly. This strategy seemed to have two basic goals: drive up the price of oil and cut down the amount of support Israel got from other nations.

The price of oil did increase dramatically, although not permanently. That result led to all the kinds of changes mentioned earlier in this story and many other changes as well. Taken all together the period is called **the oil crisis of 1973**.

Market Forces Seen in the Story

How much is available on the market? OPEC's decision to not sell oil to certain countries - including the U.S., Great Britain, and others - made oil more scarce in those countries. **Scarcity** can force a market, such as the oil market, to change. And as common sense shows, scarce things tend to cost more than plentiful things.

Everyday experience is full of examples. When sweet corn, peaches, or some other food is "in season" buyers expect lower prices and better quality. To get the same food "out of season" buyers expect to pay a premium price and maybe settle for lower quality too. Someone looking for land to build a house on expects to pay more for lakefront property because it's relatively scarce compared to other locations. Corvette owners usually know exactly how many of those cars were made in a given year - not very many, by the way - and they know where their car was in the order of manufacture.

A very extreme case of scarcity would be when there's only one or a very few of the thing. Works of fine art, for instance, often have only one original: one painting, one piece of sculpture, one original manuscript, for instance.

Scarcity can affect labor markets too. In the last few years of the 20th Century there was a shortage of computer programmers and engineers who knew how to correct for the "year 2000" glitch in systems. While they were scarce, such people could get very high paying jobs.

The flip side of scarcity is **abundance**, which usually forces markets in the opposite direction. In a labor market, jobs that almost anyone can fill tend to be low paying because there's an abundance of potential employees. As already mentioned, foods in season tend to be comparatively low priced. When millions and millions of hand calculators could be made, distributed, and sold the prices declined from over a $100 each to three or four dollars.

Our language has several common words or phrases referring to degrees of scarcity and abundance including **one of a kind, rare, unique, top grade, top shelf, in short supply, hard to find, and everyday, common, all over the place, plenty to pick from, ordinary, and over supply.**

How many buyers are in the market?

Scarcity doesn't determine a market all by itself. Buyers or users have to be in the market, too. For instance, there aren't many typewriters in stores anymore. But there aren't very many people looking for typewriters either. The market for typewriters has become small and specialized because most people use computers and printers instead. Along the same lines, there are very few people in the labor market who are really good at milking cows by hand but there aren't many employers looking for those people.

The oil market during late 1973 through 1974 became a crisis because almost everyone wanted to buy oil-based products while at the same time OPEC was producing less of the raw material. In the U.S. drivers lined up their cars for blocks, waiting to buy gasoline at service stations. Some people stashed a can of gasoline in the trunk when driving on Sunday because most service stations closed that day. Others put in extra storage tanks for home heating oil and bought all the fuel they could. Apartments that had included heat and electricity in the rent switched those costs to renters or raised the rent sharply.

Supply and Demand: A Big Idea in Economics

Economics uses the word **supply** to talk about how scarce or abundant something is in its market. And they use **demand** to talk about the number of buyers and how urgently or actively buyers are acting in a market. The relationships of supply and demand are a fundamental part of economic thinking. That is, using the concepts of supply and demand is an important part of "thinking in economics."

All of the examples used so far can be rephrased using supply-demand thinking. Here are a few of them:

- The 1973 oil crisis started with a sudden drop in supply caused by the OPEC decisions. At the same time, the demand for oil was very strong, increasing in fact. Strong demand for something in short supply creates a situation where market prices rise. In less than two years the price of crude oil went up by a multiple of ten - from $3.40 per barrel to $34.00.

- During the late 1980s and early 1990s some wealthy investors decided to buy certain kinds of fine artwork such as masterworks of European painting. This created a demand for a very small supply of original artwork. Some paintings, for example, were sold at auction for $20,000,000 or more.

- There's a small supply of typewriters nowadays, but the supply is still more than enough to satisfy the demand for them. The price of typewriters has fallen because there's no demand to drive up the price.

- Just before the year 2000 there was a very strong demand for people who could help solve the millennium bug in computer systems. At the same time there was a relatively small supply of qualified people. This combination of strong demand and short supply drove up the salaries and other compensation offered.

The connections between supply and demand can get more complicated than these examples might suggest. If you keep in mind the principle of **self-interest**, introduced earlier, you might start noticing how people and organizations manipulate supply or demand (or both) to their benefit. In the 1973 oil crisis OPEC intentionally cut supply in the face of strong demand. In the case of finding people to work on the millennium bug in computer systems, a company might decide to train current employees to handle the job - in effect, increasing the supply of qualified people.

The next lesson will look at some more aspects of supply and demand along with more examples of how people try to make the most of it.

Assignment

Part One

In this lesson you read some introductory ideas about supply and demand. One was that the combination of low supply and high demand normally drives price higher. In other words, scarce products cost more.

Now you're asked to write about a time when you were in the market for a scarce thing. One of the first things you'll have to do is pick out your example. To get your memory going, you might think about situations such as these:

- Setting out to buy a very popular toy that your child wants
- Finding an unusual or out-of-season food for a special occasion
- Buying a cd or other recording by a specific group or soloist
- Coming across a particular baseball card (or other collectible item)
- Finding an exact replacement part for an old car (or other machine)

Make a list of details you will include in what you write, including where and when this happened, what contributed to the item's scarcity, who else and how many others were interested in the item, and how scarcity seemed to influence the price of the item.

Tell what you decided to do, what you took into account while deciding, and what you think about your decision.

Part Two

Find a clear example of a situation involving supply or demand (or both) in some form of news report. Look for examples in television or radio newscasts, newspaper stories, magazine articles, or online sources.

Business sections in newspapers or magazines, business programs on television and radio, and Websites specializing in business news will be especially useful sources. If you look online, you might start with Yahoo in the newspaper and magazine sections, then look for business news sections. Or you might start with specific newspapers like The New York Times, Newsday, The Minneapolis Star Tribune, all of which have Websites.

Here's just one example of a news report. It's the first few lines of an Associated Press news wire service story printed in The Post-Star, Glens Falls, New York on December 7, 1998:

> SANTAQUIN, Utah - Utah apple growers have fallen victim to an awful apple market - so bad, in fact, that agriculture experts say most farmers are not even bothering to pick the fruit.
>
> Tony Hatch of the Utah State University Agriculture Extension Service in Provo said many apple growers are just letting the ripe fruit fall off the tree.
>
> "There's a lot of damaged fruit and not enough Americans eat fruit," said Hatch. "There's an oversupply."
>
> Utah ranks 21st in nation apple production.
>
> W. Morris Ercanbrack, a major Utah County grower, said he harvested only about 100,000 pounds of apples this fall, leaving 600,000 pounds to rot....

When you describe your example, tell exactly where and when it appeared. Quote it as exactly as you can (which is harder to do with a television or radio report, of course). Tell how long and hard you had to look before finding your example. Finally, explain whether the situation reported makes sense to you.

Economics

Lesson Four

SUPPLY AND DEMAND

The "Law of Supply and Demand"

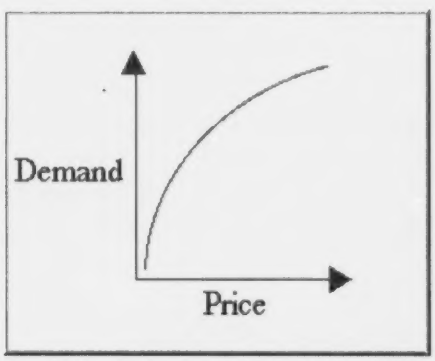
The connections among supply, demand, and price usually are called **the law of supply and demand**. In this case, the word *law* is being used in its scientific or philosophic sense, meaning a regular pattern that something follows, not a law passed by some government.

The clearest part of the law of supply and demand deals with connections between **demand and price**. The basic common-sense connections go like this:

- When a lot of people want to buy something, it will cost more
- When no one wants to buy a thing, its cost will go down

Put into slightly different words, there seems to be a positive relationship between demand and price. High demand pushes prices up, low demand pushes prices down *if all other things stay steady.*

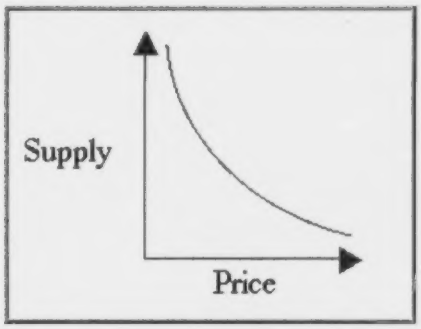
Many economists love numbers, formulas, and graphs. They might use a simple graph to show the relationship they call **the demand curve**:



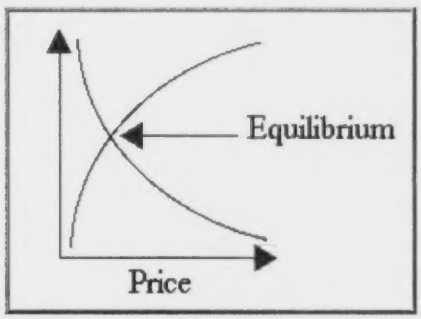
Connections between **supply and price** seem equally simple and straightforward. For instance:

- When something is scarce, it will cost more
- When something is plentiful, it will cost less

There seems to be an inverse relationship between supply and price, just the opposite of demand. Low supply pushes price up; high supply pushes price down, again *if all other things remain steady.* Charted out, it looks something like this:



Then, of course, the two curves can be shown together which will call attention to where they cross (or *intersect*). The intersection is the point of **equilibrium** - where demand and supply meet.



Actually, equilibrium often is not a specific point, but a bigger area where the market operates. Again, it's a common-sense idea. It's the range where most buyers are still willing to buy and most sellers are still willing to sell. Equilibrium gets established by the choices that people - both buyers and suppliers - make in the market.

As you probably have thought already, though, there's a huge assumption in these ideas about how demand, supply and price connect. It's the assumption *if all other things remain steady.* In the case of the demand graph, the assumption is that supply stays the same. In the case of supply graph, the assumption is that demand stays the same. But of course, other things rarely remain steady.

The ideas of supply and demand can help explain many things about markets. But the ideas need to be elaborated, at least a little, before they're useful. Part of the elaboration deals with how both demand and supply change as people live their lives, make their choices, and carry out their business.

Shifts in Demand

Not so long ago blue jeans were strictly work clothes, whole milk was called "nature's most nearly perfect food," and few people even knew what a computer was. In those years - before about 1950 - there was a relatively small demand for denim jeans, a high demand for whole milk, and almost no demand at all for computers. In more recent years those and many other demands have all changed. There is much stronger demand for jeans and computers, lower demand for whole milk.

Consumer preference, acted out in clothes markets across much of the world, shifted from using jeans only as work clothes to using them as a wardrobe basic for everyday wear, sometimes even dressy wear. Preference, with all its many and sudden shifts, is one of the basic reasons behind changes in demand.

Different motives seem to have caused reduced demand for whole milk. Many people have become more aware of the amount of fat in their diet, especially animal fat, and shifted from whole milk to lower-fat versions.

Demand for computers has closely paralleled huge reductions in price along with huge increases in computing power and dramatic improvements in ease-of-use. In other words, more and more people have found they can use computers and can afford to buy them.

In these and countless other examples you can see some general strategies that consumers use to get a better deal for themselves - that is, to satisfy their self-interest. To get a grasp on consumer strategies, imagine a person who's in the market for a vehicle of some kind and think about a few of the choices that person might have, including these:

- A brand-new vehicle or a used one
- A sub-compact, compact, mid-size, full-size, or luxury car
- A pick-up ranging from a compact with a small engine and cab to a one-ton with a huge diesel engine and a four-door cab
- Sport utility vehicle with four-wheel drive or without
- Anything that has four wheels, runs, and cost less than $1,000
- Something assembled in a U.S. factory by union workers
- Something that can be bought right away with a minimum of hassle

The list could go on for a long time, of course. But even these few choices are enough to suggest some common consumer strategies - ones that influence and shape demand for goods and services. One important strategy is to ***look for equivalents***. In the case of a used car, for instance, a given buyer might decide that a particular Ford and a particular Dodge are equivalents, then decide between them on the basis of price or other factors. In the case of buying aspirin, used back in Lesson 2, a buyer might decide that all aspirin are equivalent and decide solely on the basis of price.

Another strategy is to ***substitute*** one thing for another, a strategy only slightly different from equivalence. The difference is that a substitute is recognized as better or worse than its option, not equivalent to it. In the used car market this might mean buying an older car because it costs less or a newer one because it won't need repairs. With aspirin, substitution might mean buying coated tablets because they are easier on the stomach, even though they cost more, or buying ibuprofen instead of aspirin.

Not buying at all - ***doing without*** or ***getting out of the market***, in other words - is a third general strategy. The car buyer might decide to stick with public transportation and not own a car at all; the aspirin buyer might decide to get along without analgesics of any kind.

In consumer markets, most choices aren't made on the basis of price alone. Instead, consumers look at what they get for their money. Economists use the word ***value*** to name the combination of factors that add up to what something is worth to a consumer. Price, quality, and convenience are factors in almost all markets.

Shifts in Supply

Each winter in the United States thousands of crop farmers think carefully about what they will plant in the spring. These farmers are the suppliers of the corn, grain, wheat, soybeans, and other basic foods that will enter the markets after harvest. They have to make complicated decisions, taking into account all kinds of costs, risks, benefits, and timing. Their decisions about what to plant can have some effect on the supply of their products. And their decisions can add up to shifts in the supply.

After those decisions are made and the crops are planted, there might be any number of things that affect how much is actually harvested. Too much rain, not enough rain, hail, disease, insect infestations, or other natural events might cut down or even eliminate a crop. Excellent growing and harvesting conditions might lead to a

bumper crop, much larger and better than usual. Both poor crops and excellent crops change the supply that reaches market.

A bumper crop may not get to market at the expected time because of a shortage of transportation services like trucks, barges, or railroads. This problem might lower the expected supply at one time of year - say September - but then increase the expected supply in January, after the transportation squeeze lets up.

A bumper crop of wheat in the U.S. might be matched by European or Canadian or South American growers, adding up to an unexpected large increase in the world-wide supply of the grain.

Other markets go through comparable shifts in supply. Think of a company that manufactures computer chips. People in that company will decide how many millions of a given chip they will make during a production period. That decision, along with decisions made in other companies, can shift the supply up or down.

Ideally, the company will sell all or nearly all its chips at a profit. But if the company makes more chips than it can sell, it will suffer from oversupply, which drives prices down. And if the company doesn't make enough chips to supply its customers, it loses the chance to make more profits and might even lose its customers to another supplier.

A company's factories might have fallen behind schedule because electricity was off during a series of storms, water supply was low because of drought, or employees missed a lot of work because of a flu outbreak. Or the factories might have gotten ahead of schedule because everything went better than planned.

Transportation factors could affect the chip maker too, just as they affect almost everyone else. The company could encounter problems getting chips to their customers, which amounts to a reduced supply as far as those customers are concerned.

In general, supply can shift because of decisions that suppliers make, how well supply matches demand, how well actual production lines up with plans, problems (or lack of them) in production schedules, and how efficiently things can be delivered to customers.

Supply and Demand in Labor Markets

Supply, demand, and price connect in the labor market as well as in any other. When there are a lot of qualified people looking for a certain kind of job, pay tends to stay in place or go lower; when there's a shortage of qualified people, pay tends to go up. That seems clear enough.

But supply and demand can shift in the labor market too, as in the example of computer specialists who could help solve the millennium glitch being in short supply and high demand. Shifts in labor supply or demand can happen for all kinds of reasons, most of them similar to other markets. There might be too many or too few people getting the kind of training or education a job requires; there might be chances for businesses to move to another country or another part of a country where people are willing to work for lower wages; there might be fewer people of working age than there used to be.

In some difficult situations either employees or employers might make a drastic decision. Employees might decide to strike, which from the point of view of supply and demand is a sudden and dramatic drop in the labor supply. Employers might decide to lock-out their employees - an equally sudden and dramatic drop in labor demand.

Bringing Some Order to Markets

Markets often seem chaotic, crazy, unpredictable, or disorderly. But people need some degree of order to carry on their business. Through the years, nations and other groups have tried different ways to manage markets, which is the topic taken up in the next lesson.

Economics

Lesson Five

MARKET MANAGEMENT

From One Extreme . . .

As a way to start looking at how markets are managed, we'll use a few examples from extreme situations, where the management approaches are very obvious.

During World War II, the United States, and many other countries for that matter, used all kinds of government controls to manage the economy. There was a system of price controls that set market prices for goods like gasoline, some foods, rents, utilities, and much more. Consumers needed not only money but also government-issued stamps, which looked much like postage stamps, to buy meat, other foods, clothing, gasoline, tires, and many other things - a system called rationing. Many manufacturers were ordered to produce one thing instead of another, like military boots instead of civilian shoes or military vehicles instead of cars. Civilians who wanted to travel on trains or buses could be denied tickets if military or government personnel needed transportation.

Most people accepted this very high level of government control over the economy, seeing it as needed in order to fight and win a major war. People who exploited the circumstances through illegal exchanges - generally called the black market - sometimes were fined or jailed, sometimes were publicly berated as "war profiteers."

In short, the federal government took responsibility for decisions about prices, distribution, production, and more. The government did its best to predict what was needed to carry on the war and plan to provide it, work out ways to fairly provide and distribute what civilians needed, prevent prices from skyrocketing because of shortages, and otherwise hold the economy on a reasonably steady course.

For purposes of this course, the U.S. economy during World War II was extremely ***centrally-planned and controlled***.

In the U.S. central planning and control is used on a smaller scale and an even more temporary basis than it did during World War II years. When a disaster like an earthquake, hurricane, tornado, or flood strikes a community, some unit of government may set up economic controls: water might be rationed, food might be distributed, businesses might be shut down or required to stay open, prices for shelter or repairs might be controlled. All to help people survive and recover. A unit of government has the legal power and resources to do such things; no other organization does.

In economic terms, the U.S. economy is extremely centrally-planned and controlled only in emergency situations and only while the emergency lasts. Other countries have, or used to have, a high level of central planning and control at all times.

To Another Extreme

Other situations reveal approaches very different from centralized planning and control. One small example is taking a taxi from the airport into a city you've never visited before. In many parts of the world, this is a "buyer beware" situation because the customer may not know what to expect. (There are lots of buyer beware situations and even a Latin term for them: *caveat emptor*, which means approximately "you buy at your own risk.") For instance, should it cost you $30 or $130 to take a cab from JFK to the World Trade Center in New York City? Should you just watch the meter or wonder whether the driver is taking a very long way around? How do you find out what a "normal" fare is?

Another part of air travel looks inconsistent or hard to figure out too. At first glance, it seems reasonable to think that everyone aboard a given plane paid the same fare, except for the difference between first-class and coach-class perhaps. But on a flight from New York City to Denver, for example, people may have paid ten or more different fares, like these:

- $150 for coach-class if they bought their tickets 21 days in advance
- $310 for coach if they bought tickets ten days in advance
- $605 for first-class if they bought tickets the day of the flight
- $35 for taxes and fees if they're using a frequent-flyer coupon
- $75 for coach if they're under 12-years-old and with an adult who bought tickets in advance
- $280 for first-class if they bought tickets 30 days in advance
- $420 for coach if they bought tickets three days in advance (but they'll get a partial refund if traveling because of a medical emergency)

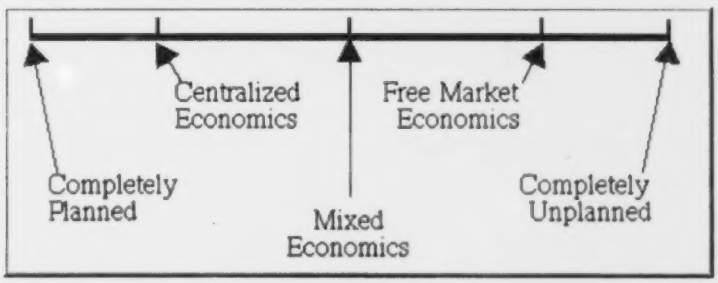
Even more drastic examples of relatively uncontrolled exchanges come up in illegal or borderline situations. People who don't pay their illegal gambling debts right away might have to pay astounding rates of interest for even a one or two day delay. (Beyond that, they might be threatened or attacked.) People who don't have a good credit history might pay a premium price for what they buy or for their insurance even if they haven't had to use it.

These situations show markets that to one degree or another have prices set by what buyers will pay or, to use an old phrase that means the same thing, "what the traffic will bear."

Two Ends of a Market Management Scale

Economics has some traditional language to name and discuss different approaches to market management. One basic idea and set of words is that ***management approaches vary along a continuum between completely planned and completely unplanned***.

You can visualize a ***continuum*** as a single line. In this case, one end of the line would stand for ***completely planned*** and the other end for ***completely unplanned***. Like this:



As you might expect, no operating economies are completely planned and controlled. And none are completely

unplanned and uncontrolled either. But the continuum idea helps show how close an economy is to the ends of the line - that is, how relatively planned and controlled it is.

When economists talk about planning and control it almost automatically means *government planning and control* because, as mentioned earlier, only governments are in a position to openly use the combination of political, social, and economic power it takes to even attempt a centralized system.

Economic systems toward the left end of the continuum go by a few different names. Most often, they're simply called planned economies. They're sometimes called centralized economies because the planning and control is done from a single source, most often a national government.

Planned or centralized economies usually go along with a political system that's highly centralized. So through human history there have been highly planned economies in societies including Egypt, Imperial Rome, fascist Germany, and the former Soviet Union and its communist allies. There also have been highly planned economies in societies that democratically voted for socialist governments, as in several British Commonwealth nations, Scandinavia, Western Europe, and Africa, among others.

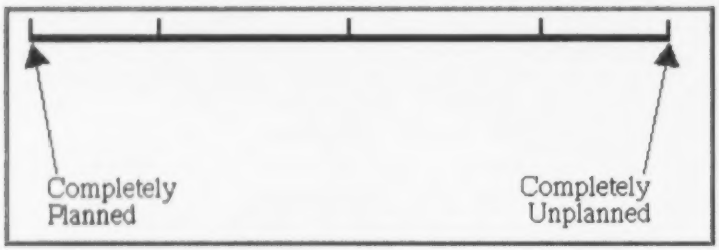
Economies toward the right end of the continuum also go by different names. Capitalist, free market, market-economy, free enterprise, and profit-driven economy are five of the most common names. The names suggest the characteristics economists see in them. Capitalist suggests the major role of private investors, including individuals and groups, whose money is used to start, run, and maintain a business. In a literal way, investors are capitalists; they provide the capital businesses need. Free market and market-driven suggest that decisions are made in the marketplace, by the choices buyers and sellers make, not by government action. Free enterprise has about the same implication but focuses on the idea of "enterprise" or "being enterprising" - which suggests taking some risks and working hard in return for a profit.

Profit, in fact, is one of the main characteristics of economies toward the right end of the continuum. In its most basic sense, profit is income minus costs. That is, it's what's left of a business's or a person's income after all costs have been paid. Some business costs are very direct: paying for materials, running a place of business, paying employees, paying taxes, and the like. Other costs are more indirect: keeping up a building or office, doing research into new products or services, bringing new products and services to market, gathering information about what competitors do or how the market might change in the future, saving and investing funds to use in the future, and so on. What's left goes to investors - the capitalists or capitalizers - who invest in order to make a profit.

In some important ways, wanting to make a profit through investing is like wanting to make a decent wage or salary. A decent wage or salary may be hard to define exactly, but it would be enough for a person to pay all the direct and indirect costs of living and have something left over. That's income minus costs. Decent profits are hard to define exactly, too. Values and beliefs come into many discussions of profit. For instance, some people think investors don't do enough to earn their profits: they only put up the money. Other people say that's exactly why investors deserve a profit: they put up the money.

Elaborating the Continuum

The preceding section said that centralized economies are toward the left end of the market management continuum and free market economies are toward the right end. Economists also talk of ***mixed economies***, which are a blend of some central planning/control and free market approaches. With all this in mind, the continuum can be elaborated to look like this:



There are some good reasons for showing operating economies toward one end or the other, but not out at the extreme. For example, even highly planned and controlled economies have some free market, even "buyer beware" things going on. Things like the airport taxi situation go on in some cities where the fares officially are closely regulated. People with plenty of money may be able to buy almost anything they're willing to pay for despite price controls. These unofficial, semi-secret exchanges sometimes are called the "underground economy," governed much more by supply and demand than by official policy.

Free market economies have plenty of restrictions too, some of them government laws and regulations and some of them unwritten rules. In the United States, which prides itself on having a very free market approach to its economy, there is a huge set of laws governing things such as what a company can and cannot tell potential investors, whether companies in the same business can get together to set prices, minimum wages that can be paid, when and how taxes must be paid, safety and environmental practices that must be followed, and much more.

In the history of slavery in the United States and elsewhere you can see an excellent example of how laws and unwritten social values work together to restrict absolute market freedom. Slavery was - and is - an incredibly profitable system for traders, owners, and their investors. But the ghastly human costs outweigh the strictly economic advantages.

The Big Problems

According to most people who study them more or less objectively, any economic approach has its own strengths and weaknesses. To get a glimpse of this general idea, here's a very brief summary of what traditional economics says are the biggest problems of centralized economies and free market systems respectively.

- **Missing the market** - Centralized economies, because they try to plan everything in advance, have enormous trouble predicting and reacting to real markets. Maybe a story will help explain this. Say you're in charge of a factory that makes nails. In a highly-planned economy, you'd be given some kind of quota; that is, you'd be told how many and what kinds of nails your factory should make. If you were told only how ***many*** nails to make, you might reasonably decide to make lots and lots of small nails because the number would add up much faster and you'd be sure to make your quota on time. If you were told how ***many pounds*** of nails to make, you might decide to make big heavy nails because the weight would add up faster. So whoever does the planning and sets the quotas has to figure out how many ***and*** what kind of nails people want and need, which turns out to be a very complicated decision. Then too, if your factory is only one making nails, the entire market is at your mercy - or the mercy of the planner. So where does a planner look to find out what the quota should be? The first, and probably the best, answer is: To the actual market for nails.

If this kind of complicated decision has to be made in advance for every product or service, the whole centralized process can become riddled with expensive mistakes. That's been one of the main criticisms of highly planned, centralized systems: piles and piles of goods that no one wants, severe shortages of goods that people do want.

- **Concentrating the wealth** - Free market economies allow people with money to make more money, then turn around and make even more. In order to invest - to be a capitalist - people must have some money available; that is, some money left after paying for their basic needs. Then too, market investments carry at least some risk of loss and maybe a lot of risk. So investors must be in a position to survive losses and live with the risks. All of this adds up to a clichÈ that still makes an important point: It takes money to make money.

And this results in a pattern where people with money to begin with are in the best position to make more money - through investment. In economic terms, this is concentration of wealth: a relatively few people owning a very high percentage of an economy's total wealth. One widely used indicator of concentration is the percentage of wealth held by the richest one percent of Americans. The following material, posted at the Web address **http://www.lightlink.com/cdb-l/archives/12.94-3.96/1041.html**, gives a quick historical summary:

CONCENTRATION OF CAPITAL
(Big Capital Eats Little Capital)

The "New York Times" published an article on August 16, 1992, that was titled "How wealthy the Wealthy: a History". Three economists tried to estimate the percentage of wealth held by the richest one percent of Americans from 1774 to 1989.

From 1774 to 1863 the share of the top one percent grew from 15% to 29%.

That is, just one percent of all Americans owned 15% to 29% of all the wealth. However, during the civil war, a significant amount of private property belonging to the wealthy -- slaves -- was confiscated by the government. This reduced the concentration to 27%.

The trend of increasing concentration continued after the war, and by 1929, just prior to the stock market crash, it was 42%. With the advent of the New Deal and the implementation of the minimum wage, support for unions, progressive taxation, etc., the concentration stopped and remained fairly constant at 30% between 1933 and 1973.

Between 1973 and 1978 the stock market declined by 42% primarily due to oil supply and price. This dropped the share of the top one percent to 18%, close to the smallest share of wealth they've had in U.S. history. However, by 1989, the most rapid increase in wealth concentration in U.S. history had occurred. The number had reached 36%. One percent of the population possessed over one-third of all the wealth in the country!

Most of the numbers, prior to 1923, should be viewed with caution, since many are based on indirect evidence. However, the data since 1922 is more accurate since it is calculated by the Federal Reserve. The next numbers will be for 1992, and the early word is that it will show a major increase in wealth concentration.

IMPORTANT DATA POINTS

1774 14.6%

1848 29 %

1870 27 %

1914 35.4%

1929 42.6%

1933 to 1973 (HIGH 35%) (LOW 26%) AVER. approx. 30%

1978 17.6%

1981 31 %

1989 36.3%

Another source - **The American Friends Service Committee Website** - reported that in 1992 " . . . the top 1% controls 48.1% of net financial wealth. The next 4% controls 24.2%. And the bottom 95% only have 27.7% of the net financial wealth."

Assignment

You can find the words centralized, mixed, and free -- or other words meaning about the same things -- used in many different places including reference books, newspapers, magazines, and in speech. The words and, even more important, the ideas they label have become well established.

As an example of the practical use of these ideas, this assignment uses excerpts from one widely available reference source: The KGB/CIA World Factbook, which is published in both book and cd-rom versions.

The Factbook contains information (and some opinions, usually indirect ones) about 200+ nations -- nearly all the countries the United Nations officially recognizes as independent states. Much of the information is economic, reflecting the importance many people attach to that kind of data.

The Factbook uses a straightforward pattern. Countries are ordered alphabetically, according to their English-language name. For each country, the book gives basic information in several categories including geography, people, government, communications, defense forces, and economy. The economy section starts with a short overview.

For purposes of this assignment, these overviews are useful because many of them say something about the general type of economy. For instance, if you looked up the United Kingdomís economy section, youíd find the overview starts with:

> The UK is one of the world's great trading powers and financial centers, and its economy ranks among the four largest in Europe. The economy is essentially capitalistic with a generous admixture of social welfare programs and government ownership.

Now, from what youíve learned already, capitalistic is another label for a free market or market driven economy, and youíd know that the bookís saying the U.K. economy may be that kind. However, the book also mentions social welfare and government ownership, both of which are centralized features. So you might decide to call the U.K.ís a mixed economy.

At the end of this assignment youíll find economic overviews for eight different countries. (These are quoted from the 1994 cd-rom version of KGB/CIA World Factbook published by Comptonís.)
Youíll use this material to do both parts of the assignment.

Read the assignments first so that you have a better idea of what you need to find in the quoted material. If you want to, make a few notes for yourself.

Then read all the material. Make notes on your reading, especially for parts you think you might quote or otherwise refer to when you write.

Part One

Using what the book says, pick one country as an example of a centralized economy. Then explain whatís said in the overview leading you to that decision. Quote from the overview as needed.

In the same way, pick another country as your example of a mixed economy and explain your choice.

Then do the same with an example of a free market economy.

Write a short paragraph about each example. Conclude with a paragraph explaining anything that surprised or confused you as you thought about the quoted material.

Part Two

At the end of each overview youíll find some numbers reported. One is called GNP, which stands for gross national product. GNP is supposed to be a countryís total production of goods and services in one year. Another number is called per capita, which literally means ìfor each head.î In this case, it is dollars of GNP divided by the population of the country -- roughly, the average income per person.

Pick out one country youíd call high income and another one youíd call low income -- again, according to the information youíre given. Tell how you reasoned this out. Then comment on anything that surprised or confused you as you went through this.

Eight Economic Overviews from The KGB/CIA World Factbook

• Algeria

Overview: The exploitation of oil and natural gas products forms the backbone of the economy. Algeria depends on hydrocarbons for nearly all of its export receipts, about 30% of government revenues, and nearly 25% of GDP. In 1973-74 the sharp increase in oil prices led to a booming economy that helped to finance an ambitious program of industrialization. Plunging oil and gas prices, combined with the mismanagement of Algeria's highly centralized economy, have brought the nation to its most serious social and economic crisis since independence. The government has promised far-reaching reforms, including giving public sector companies more autonomy, encouraging private-sector activity, boosting gas and nonhydrocarbon exports, and a major overhaul of the banking and financial systems. In 1988 the government started to implement a new economic policy to dismantle large state farms into privately operated units.

GDP: $54.1 billion, per capita $2,235; real growth rate - 1.8% (1988)

• China

Overview: Beginning in late 1978 the Chinese leadership has been trying to move the economy from the centrally planned economy to a more productive and flexible economy with market elements--but still within the framework of monolithic control by Communist party. To this end the authorities have switched to a system of household responsibility in agriculture in place of the old collectivization, increased the authority of local officials and plant managers in industry, permitted a wide variety of small-scale enterprise in services and light manufacturing, and opened the foreign economic sector to increased trade and joint ventures. The most gratifying result has been a strong spurt in production, particularly in agriculture in the early 1980s. Otherwise, the leadership has often experienced in its hybrid system the worst results of socialism (bureaucracy, lassitude, corruption) and of capitalism (windfall gains and stepped-up inflation). Beijing thus has periodically backtracked, retightening central controls at intervals and thereby undermining the credibility of the reform process. Open inflation and excess demand continue to plague the economy, and political repression, following the crackdown at Tiananmen in mid-1989, has curtailed tourism, foreign aid, and new investment by foreign firms. Popular resistance and changes in central policy have weakened China's population control program, which is essential to the nation's long-term economic viability.

GNP: $NA, per capita $NA; real growth rate 4% (1989 est.)

• Germany

Overview: West Germany, a major economic power and a leading exporter, has a highly urbanized and skilled population that enjoys excellent living standards and comprehensive social welfare benefits. The FRG is poor in natural resources, coal being the most important mineral. The FRG's comparative advantage lies in the technologically advanced production stages. Thus manufacturing and services dominate economic activity, and raw materials and semimanufactures constitute a large proportion of imports. In 1988 manufacturing accounted for 35% of GDP, with other sectors contributing lesser amounts. The major economic problem in 1989 is persistent unemployment of over 8%. The FRG is well poised to take advantage of the increasing economic integration of the European Community. The dramatic opening of the boundary with East Germany in late 1989 poses new economic challenges that could tax even this powerful economy. East Germany is moving rapidly away from its centrally planned economy. As the 1990s begin, economic integration with West Germany appears inevitable, beginning with the establishment of a common currency. The opening of the border with the FRG in late 1989 and the continuing emigration of hundreds of thousands of skilled workers had brought growth to a standstill by yearend 1989. Features of the old economic regime that will quickly change: (a) the collectivization of 95% of East German farms; (b) state ownership of nearly all transportation facilities, industrial plants, foreign trade organizations, and financial institutions; (c) the 65% share in trade of the USSR and other CEMA countries; and (d) the detailed control over economic details exercised by Party and state. Once integrated into the thriving West German economy, the area will have to stem the outflow of workers and renovate the obsolescent industrial base. After an initial readjustment period, living standards and quality of output will steadily rise toward West German levels.

GDP: $945.7 billion, per capita $15,300; real growth rate 4.3% (West Germany, 1989 est.); $159.5 billion, per capita $9,679; real growth rate 1.2% (East Germany, 1989 est.)

• India

Overview: India's economy is a mixture of traditional village farming and handicrafts, modern agriculture, old and new branches of industry, and a multitude of support services. It presents both the entrepreneurial skills and drives of the capitalist system and widespread government intervention of the socialist mold. Growth of 4% to 5% annually in the 1980s has softened the impact of population growth on unemployment, social tranquility, and the environment. Agricultural output has continued to expand, reflecting the greater use of modern farming techniques and improved seed that have helped to make India self-sufficient in food grains and a net agricultural exporter. However, tens of millions of villagers, particularly in the south, have not benefited from the green revolution and live in abject poverty. Industry has

benefited from a partial liberalization of controls. The growth rate of the service sector has also been strong. India, however, has been challenged more recently by much lower foreign exchange reserves, higher inflation, and a large debt service burden.

GNP: $254 billion, per capita $300; real growth rate 4.5% (1990 est.)

- **Iraq**

Overview: The Bathist regime engages in extensive central planning and management of industrial production and foreign trade while leaving some small-scale industry and services and most agriculture to private enterprise. The economy is dominated by the oil sector, which provides about 95% of foreign exchange earnings. Since the early 1980s financial problems, caused by war expenditures and damage to oil export facilities by Iran, have led the government to implement austerity measures and to reschedule foreign debt payments. Oil exports have gradually increased with the construction of new pipelines. Agricultural development remains hampered by labor shortages, salinization, and dislocations caused by previous land reform and collectivization programs. The industrial sector, although accorded high priority by the government, is under financial constraints. New investment funds are generally
allocated only to projects that result in import substitution or foreign exchange earnings.

GNP: $35 billion, per capita $1,940; real growth rate 5% (1989 est.)

- **Mexico**

Overview: Mexico's economy is a mixture of state-owned industrial plants (notably oil), private manufacturing and services, and both large-scale and traditional agriculture. In the 1980s Mexico
experienced severe economic difficulties: the nation accumulated large external debts as world petroleum prices fell; rapid population growth outstripped the domestic food supply; and inflation, unemployment, and pressures to emigrate became more acute. Growth in national output, however, appears to be recovering, rising from 1.4% in 1988 to 3.9% in 1990. The US is Mexico's major trading partner, accounting for two-thirds of its exports and imports. After petroleum, border assembly plants and tourism are the largest earners of foreign exchange. The government, in consultation with international economic agencies, is implementing programs to stabilize the economy and foster growth. In 1991 the government
also plans to begin negotiations with the US and Canada on a free trade agreement.

GDP: $236 billion, per capita $2,680; real growth rate 3.9% (1990)

- **Singapore**

Overview: Singapore has an open entrepreneurial economy with strong service and manufacturing sectors and excellent international trading links derived from its entrepot history. During the 1970s and early 1980s, the economy expanded rapidly, achieving an average annual growth rate of 9%. Per capita GDP is among the highest in Asia. In 1985 the economy registered its first drop in 20 years and achieved less than a 2% increase in 1986. Recovery was strong. Estimates for 1989 suggest a 9.2% growth rate based on rising demand for Singapore's products in OECD countries, a strong Japanese yen, and improved competitiveness of domestic manufactures.

GDP: $27.5 billion, per capita $10,300; real growth rate 9.2% (1989 est.)

- **United States**

Assignment

The consumer strategies mentioned in this lesson included three general ones:

- Deciding on equivalents, then buying one of them
- Finding a substitute and buying it
- Choosing to go without

For example, if you feel like seeing a movie, you might have all three choices available to you. You could decide on three or four movies you want to see, find out where they're showing, and go to the one that's most convenient or least expensive or so on. That would be choosing from among equivalents.

Or you could decide against seeing one of those three or four movies you picked out and instead rent a movie to watch at home. That's substitution.

And of course, you could decide to do something else - in other words, go without a movie.

Part One

Pick out five purchasing choices you've made recently. For each of those choices, think of at least one equivalent and of at least one substitute. Write a brief but specific description of each choice, equivalent(s), and substitute(s).

For instance, you could describe shopping for ground beef like this:

> I was grocery shopping and decided to get some ground beef. Because I planned to use it for tacos, I would be browning it and draining off the fat. So extra-lean, lean, and regular ground beef were equivalent. I could have substituted ground turkey or ground chicken.

Part Two

Elaborate on one of the five choices you described in Part One. In your elaboration, comment on factors that contributed to your choice. Consider matters such as price, personal preferences, convenience, and habit.

End this part with a sentence or two (or more) in which you use the idea of "best value" to summarize the combination of factors.

Economics

Lesson Six

THE POWER OF COMPETITION

Competition

Games people play: a context for thinking about economic competition

All of us have daily experience with competition of one kind of another. We might race away from a stop sign to beat a line of cars to the freeway ramp three blocks down the street; or shake our heads at someone else who does this. We might keep track of how many breaks co-workers take and plan to take the same number; or shake our heads at someone else who does this. We might follow a sports team or play on one, talk about who should win movie or music awards or come up with our own lists, listen to someone brag about a new computer system, or do any number of other similar things.

We're also involved in economic competition, most regularly when we make choices of what to buy. Cheerios or no-name oat circles? Bud or Miller? Mac or Windows? The choices almost always seem to be between or among ***competing*** brands or versions. Competition helps set prices and shape other aspects of almost every market, regardless of how planned or unplanned the economy may be, and it becomes more of a factor as economies move toward the unplanned end of the continuum. Competition is an especially powerful force in free market economies.

When people hear the word "competition," they often associate it with games or contests of some kind: cards, board games, fishing contests, golf tournaments, cooking contests, and the like. In competitions like these, the results are usually clear and so are the rules that govern the game. Economists sometimes use human experience with games to help explain and understand economic competition. In fact, there's a whole branch of analysis used in economics and other social disciplines that's called ***game theory***.

Game theory can get very detailed, complex, and mathematical, but some of its main observations probably will seem familiar and common-sense. For one, game theory points out that the number of "players" makes a big difference. There are one-player games, but those aren't very interesting to economists and other social scientists because they don't reveal much about economic or other social behavior. Two-player (or two-sided) and multi-player (or multi-sided) games are much more like social behavior, especially when you keep in mind that from this theoretical point of view players might be individual persons, teams, corporations, or even nations. Very social and often very economic, in other words.

Another observation points out that two-sided and multi-sided games typically involve a series of choices or moves: moving chess or checkers pieces on a board, deciding which cards to keep or play, returning the opponent's shot in tennis or similar game. What interests theorists is that the choices very often are ***responses to what another player does***. What one player chooses is partly conditioned by what other players do. Where a player moves a chess piece is partly a response to where the opponent has moved or appears to be moving. In an economic marketplace, the similar element is that sellers often make moves in response to buyers or other sellers; buyers often act in response to sellers or other buyers.

Game theory also points out that games differ in how much information players have about each other's moves. In a game like chess, all the moves are out in the open; both players see all the pieces, all the time. It's different in a game like draw poker, where one player sees only his or her hand and has to guess (or infer) what opponents have from their other moves. Chess is a game of full or perfect information; poker is a game of limited or

imperfect information. In an economic market, what buyers and sellers know about each other can make a huge difference. For instance, knowing how much a car dealer pays for a car can help a buyer decide what to offer.

Game theory also points out how useful it is to think about winners and losers when trying to understand a game or other competitive situation. Some games are ruthlessly simple: two persons or two teams play; one wins, the other loses. Winner takes all. In many card games it doesn't matter how many points the winner wins by, only that he or she scores one more than the opponent. In many sports, the same thing applies: a baseball game might be won by one run or 20, but there's only one winner; a bowling match might end with one pin or 100 difference, there's still only one winner.

Winning and losing may be slightly but crucially different in other situations. An evening with five people playing poker probably will end with one player winning more than anyone else (although there could be a tie of more than one). But there also must be at least one loser, too. All of the counters - money, chips, points, or whatever - stay within the game. If you add up all the losses and winnings, they balance out exactly.

Theorists call these "zero-sum" or "constant sum" games. The winners and losers balance out; so does the total amount of winnings and losses. People also call this a ***win/lose*** situation. As far as the game is concerned, the players' interests conflict completely. Recognizing whether an economic situation is or comes close to zero-sum can be very important to understanding.

Some games and many, many economic exchanges are <u>not</u> zero-sum. If you think of labor contract negotiations as a game between employees and managers - a very serious and important game - you can see how both sides could lose a lot if the negotiations fail. A strike means that employees will be without wages and benefits. The longer the strike, the more they lose. At the same time, a strike that forces the business to close down means that the company will lose income. Again, the longer the strike, the more income is lost. In a case like this, the results don't add up to zero; they add up to the combined losses of both sides. It's a "non-zero sum game" and it's also what many people call a ***lose/lose*** situation.

But there are ***win/win*** situations, too. A labor contract negotiation that goes smoothly could lead to employees winning elements like higher pay, better benefits, and stronger job security at the same time that the company wins higher production goals, wage and benefit stability, and lower training costs. Win/win situations, from a game theory point of view, are also non-zero games, where the results come from the combined winnings of the players. Of course, win/win is the happiest kind of game to play - and it's probably more common than most people think.

Economic win/win situations often involve a high level of cooperation between buyers and sellers. People who are buying a house or leasing an apartment usually communicate quite a bit with the seller or rental agent. The parties might negotiate terms ahead of time, with the final transaction being mostly a time for signing agreements. Similar things go on in other markets as well. The classic case of "splitting the difference" between one price and another can happen because buyers and sellers communicate with each other and find what they can agree on.

Other economic situations don't have much cooperation in them. A classic case is an auction where the highest bidder wins, period.

To summarize these few ideas from game theory, then, asking and answering the following questions can help clarify a competitive situation, including economic ones:

- **How many players are involved?**
- **How do players react to the choices other players make?**
- **What do players know about each other?**
- **Is the game "zero sum" or "non-zero"?**
- **Is the game "win/lose" or "lose/lose" or "win/win"?**
- **How much cooperation is built into the game?**

Ideal Competition

If a competitive market - say for home computers - worked perfectly it would go something like this:

- Buyers could choose one of many computers, all of which were offered by different sellers. In fact, there would be so many sellers that they couldn't get together and set prices artificially high.
- All the computers would be attractive to some number of buyers; all sellers would "meet the competition" or "be fully competitive."
- There would be enough buyers so that each seller could make enough profit to stay in the market.
- If buyers or sellers got out of the market, new ones could get in without too much trouble.

All this might sound familiar and it should. It's the basic idea of balanced supply and demand, which you read about in Lesson Four. Ideal competition would bring about exact equilibrium of supply and demand - without any help from government regulation.

What Shapes Competition?

But as with so many other things, real competition rarely works as simply as the ideal. So let's stay with examples from the home computer market and look at some things that make competition more complex.

How many companies make and sell home computers? At the time this is being written (September, 1998) a few large companies made most of the home computers on the market, among them Compaq, Dell, IBM, Hewlett-Packard, Gateway, Apple, and so on. Many smaller companies make home computers too, but even putting all their sales together, the percentage is small. Most of the competition is among the large companies.

Additional competition comes into the picture at the "retail level" where users buy from a business that doesn't make computers itself, like a store or catalog service. Then a buyer faces some additional choices but might benefit from the competition among retailers. For instance, a buyer could shop around for the best deal on an Apple or Compaq or IBM system. In the mid-1990's, the Dell and Gateway companies both assembled computers and sold them directly to users instead of to retailers. This "direct sales" approach affected market competition too.

Sometimes one seller becomes the only source of a product or service, a situation called ***monopoly***. Then of course, there is no competition, which may mean the seller can set the price and buyers must pay that price or go without. During much of the 20th Century in the U.S. governments gave certain companies monopoly rights to provide services such as electricity, telephones, natural gas and other "utilities." In return, governments controlled the prices the monopolies could charge. The reasoning behind this arrangement was that the services were so basic that the government had to guarantee that people could get them and afford them. Except for government-regulated ones, true monopolies are rare and hard to achieve, partly because many laws work to prevent them and because new sellers get into a market if they can.

Are all competing home computers equal? Deciding whether one home computer is as good as another might turn out to be difficult. For one thing, sellers work hard at convincing buyers that their computers are better than others. In their advertising, for instance, one company might say the equivalent of "our computers are the best in the business and don't cost much more than anyone else's either" while another company says "our computers do everything the most expensive brand does but costs a little less." Or a seller might include some feature they think a lot of buyers will want, like a slightly faster processor, a bigger monitor, or some extra software. All in order to make their product stand out from the competition. In economic terminology, standing out goes by names like ***product differentiation, product identification,*** or ***distinction***. The general goal is clear though: get a competitive advantage.

Sellers want their products to stand out because if they don't, price is the only basis for competition. In the case of

home computers, if one computer is indistinguishable from others - if all of them are equal - buyers would simply shop for the lowest price and wouldn't worry about anything else. By and large, sellers hate this situation, which has at least three names: ***price competition***, ***price-only competition***, and ***commodity pricing***. Some markets are trapped in this kind of competition though, most obviously markets for agricultural raw products like wheat, corn, and soybeans. Hard wheat grown in North Dakota is practically identical to hard wheat grown anywhere else in the world, so price is the only practical base for competition and that's been disastrous for farm profits. Incidentally, goods like wheat, corn, and soybeans are known as farm commodities, which is where the name commodity pricing comes from.

Buyers often take into account many other things besides price, though. When deciding where to buy a computer, even when the systems are identical, someone might ask questions like these: Will I get exactly what I pay for? What's the warranty like? Will I get it when I want it? Can I get the help I need to set things up? Will I get good service if something's not right? Does the seller have a reputation for treating customers well?

Those questions make it clear that there are ***in-addition-to-price*** factors involved in competition too.

Buyers might have what economists and marketing specialists call ***brand loyalty***. Someone who says "I'll buy any computer as long as it's a Dell" or "It's got to be a Mac, no matter what else," is showing brand loyalty and limiting competition right from the start. Sellers often invest in advertising and customer service that builds loyalty.

But of course, the reverse of brand loyalty can be a factor too, what might be called ***brand hostility***. For any of hundreds of reasons, a buyer might eliminate one (or more than one) kind of computer, saying in effect "No way will I buy one of those." That decision puts some sellers out of the running - out of the competition.

How easy is it for new sellers to get into the home computer market and make a profit? Starting into that market might start with an idea for a new and improved computer. But ideas alone don't break into a market. Computers have to be made, which takes employees, equipment, parts, space, and a full plate of other resources. Buyers and re-sellers have to know about the product line and want the products. Products have to get to buyers and re-sellers, on time and in excellent condition. And the whole package has to meet market competition. In other words, there are plenty of natural ***market barriers*** in even the most free and open systems. Established sellers might cut prices just to keep new sellers from getting started, one of the harsh realities of competitive markets.

New sellers often look for some special and maybe small part of the market where they can compete successfully. Macintosh computers, for instance, are very popular with users who want or need graphics: drawing, photography, page layout, design work, and so on. Hasselblad cameras are popular with photographers who want very high quality and film formats larger than usual. Sushi sells well in U.S. neighborhoods with concentrations of Japanese people. Economists and marketing specialists call these ***market segments*** and ***market niches***. ("Niche" is used in biology to name an environment that's well-suited to some form of life - a place that a plant, animal, or other form of life can thrive in.)

Workable Competition

Many economists use the term ***workable competition*** to label how competition goes along in actual markets, like the market for home computers or thousands of other goods and services. Because competitive markets have many choices available to both sellers and buyers, it can be hard to keep track of what happens. But here are a few possibilities, still using home computers as the example:

- Compaq reduces computer prices an average of ten percent. That means the company makes a smaller profit on each computer, but hopes to sell more of them.

- Dell, IBM, Hewlitt-Packard and others could also lower their prices ten percent. That means they all make a smaller profit on each computer, but hope to sell as many as they did before and not lose customers to Compaq.

- Some seller other than Compaq, say IBM, could lower its prices more than Compaq did, say 20 percent. That company would make an even smaller profit, but hopes to take buyers away from everyone else.

- Another company, say Gateway, might introduce a faster chip than Compaq is using, keep its prices about where they had been, and try to attract new buyers with its performance.

- Some buyers might decide that prices are going even lower because of all the competition and wait for that to happen.

This might seem like a wonderful situation for buyers, and it probably is. But how long can these companies go on reducing prices or improving their products? The short answer is as long as they can make a profit. The longer answer would have to look at all of the factors that affect profit; that is all the costs of being in the business: manufacturing, equipment, taxes, distribution, marketing, research, maintenance, and more.

The Price of Competition

Competition costs something. Sellers have to keep buyers informed and try to convince them to buy - the main goals of advertising - and in some markets advertising is a huge cost of doing business. Sellers face other marketing costs too, everything from packaging a product to doing market research. Sellers also keep track of what their competitors are doing and respond in one way or another, which are additional costs.

Competition adds to the cost of doing business. Sellers need to cover all their costs, which they do in setting their prices. So in a very real way, buyers pay the costs of competition. Those costs become part of the price, in other words.

Back in Lesson 2 you read some examples of market choices, one of them about aspirin. Here's the passage:

- Think of people in the market for aspirin. How do they choose which aspirin to buy? Consumer advisers might tell you that all aspirin is identical. That is, the active ingredient is chemically the same no matter what brand and the amount per tablet is standard (325 grains). If that's so, why doesn't everyone choose the cheapest aspirin? Well, because the market provides and promotes other choices: aspirin with caffeine (which is supposed to make it work faster), with starch coatings (which is supposed to prevent upset stomach), in capsules instead of tablets (which is supposed to make it easier to swallow), in smaller or larger doses (which is supposed to be more convenient and accurate) or aspirin with a well-known brand name (which is supposed to make it more trustworthy all the way around).

Using a few basic ideas about competition, you could elaborate on this passage. You could, for instance, think about how many aspirin sellers there are in the market; whether there might be a difference between the number of aspirin makers and the number of aspirin retailers. You could think about how aspirin sellers try to make themselves stand out from their competitors and how much it costs them to do that. You could distinguish between price competition and in-addition-to-price competition. You could think about how easy or difficult it might be for a new business to get into the aspirin market, as a maker or retailer or both. And as a consumer, you could think about what you're paying for.

Assignment

Part One

For this part youíre asked to focus on what sellers do to make their products or services stand out from competing ones -- what the lesson called product differentiation, product identification, or distinction.

Find or recall three clear examples of attempts make a product or service stand out. You can find plenty of examples in advertising such as print ads, tv or radio commericals, Web site layouts, billboards, and posters. You might notice other examples in what sales people or others say to you.

Write a paragraph (or more if you need to) about each example. Identify the product or service youíre writing about and tell a little about its competitors. For instance, you could start with a sentence like Coca-Cola has to stand out among all the beverages that a consumer can pick from including other colas, other sodas, and a huge number of other possibilities.

Report what youíve noticed about what the sellers do to make their product or services stand out. Tell what you think of what they do.

Part Two

For this part youíll be focusing on the difference between a win/lose and a win/win game. (In the lesson youíll find that another name for win/lose is zero sum game.)

Find another person -- an adult or near-adult -- you can talk to about this. First, find out if that person knows the idea of win/lose and win/win games. If the person does know the idea, do number one below. If the person doesnít know the idea, do number two.

1. Ask the person to explain the idea to you. Then write a paragraph (or more) about the explanation. Report on how the explanation compared to the one in the lesson. Describe any examples the person uses. If no examples are offered, ask for one of each type of game. Tell what you thought of the explanation: how clear it was, how effective the examples were, what problems you had following along.

2. Explain the idea to the other person. Write a paragraph (or more) about your explanation. Report what you used as examples of each type of game and how effective you think they were. Summarize any questions the other person asked. If no questions were asked, ask the person to give one example of each type of game other than the examples you used. Tell about any problems the person had with you explanation or any you had making it.

Part Three

Think of a time when you were in a competitive situation where what you did included responding to the other person or other side. Your example might involve economic competition, a personal conflict, a social situation about reputation or superiority, or a literal game of some kind. But youíre asked to focus on how you had to respond to what your opponent did.

Here are some situations that might help you recall one of your own:

* Bargaining over the price or value of something for sale or up for trade

* Getting someoneís attention away from another person

* Convincing a friend to join in going somewhere or doing something

* Getting a seller to exchange or repair something you bought

* Playing a board or card game

* Being in a scored game like bowling, pool, billiards, tennis, or so on

Write one or more paragraphs in which you identify the situation and who you were competing with, what actions of your opponent were the most challenging to you, how you tried to counter those challenges, and how the encounter ended.

Overview: The US has the most powerful, diverse, and technologically advanced economy in the world, with a per capita GNP of $21,800, the largest among major industrial nations. In 1989 the economy enjoyed its seventh successive year of substantial growth, the longest in peacetime history. The expansion featured moderation in wage and consumer price increases and a steady reduction in unemployment to 5.2% of the labor force. In 1990, however, growth slowed to 1% because of a combination of factors, such as the worldwide increase in interest rates, Iraq's invasion of Kuwait in August, the subsequent spurt in oil prices, and a general decline in business and consumer confidence. Ongoing problems for the 1990s include inadequate investment in education and other economic infrastructure, rapidly rising medical costs, and sizable budget and trade deficits.

GNP: $5,465 billion, per capita $21,800; real growth rate 1.0% (1990)

Economics

Lesson Seven

CONSUMER CHOICES

Consumer Strategies

People who live in a market economy go back and forth between being sellers and buyers, but they're much more often buyers: of food, clothing, shelter, energy, and hundreds of other goods and services. In economic terminology, *consumer* is another word for *buyer*, and depending on just what market is involved, a consumer might also be called a customer, user, end-user, or client.

Over 250 million people live in the United States alone -- over five billion in the world. Almost all of them are consumers to some degree, and because there are so many consumers, when added all together their choices have enormous economic consequences - for them, for sellers, and for the markets they participate in.

Consumer choices go all over the map, from careful decisions that yield a lot of value to reckless impulses that end up as total wastes. Maybe you know people who seem to get a lot for their money most of the time. You might notice that they find good buys on food, clothes, travel, entertainment, and the other things they use. Or you might notice they seem to have a little left over while the rest of us don't have quite enough to cover ourselves.

You might also know a few people who make consumer choices that get them into deep trouble. They might spend $100 per week on lottery tickets, which usually means losing most or all of it. Then they might decide to spend even more to "even out the losses," which usually means losing even more. This can put them into a tailspin they can't get out of easily. Roughly the same thing can happen to people who run up credit card accounts, borrow money at high rates of interest, throw money into get-rich-quick schemes, or fall into similar traps.

As usual most consumers fall between these extremes - usually being reasonably careful about choices, but not always; sometimes making an impulsive or costly decison, but not very often. But there's no doubt about it: making smart consumer choices can pay off.

Comparison Shopping: The Basic Strategy

The whole idea of having a choice depends on having more than one possibility. In other words, to have a choice means picking from more two or more possibilities. Once again, the example of buying aspirin can illustrate the point. A store shelf stocked with aspirin probably will hold at least a dozen versions from which consumers will choose. What will consumers pay attention to in making that choice? What will they be willing to pay for?

Smart consumers have their own version of those and related questions. They turn the questions into personal ones, like: What should I or will I pay attention to? What am I willing to pay for? What's the best all-around deal for me? This is the idea of self-interest introduced earlier in the course, but this time seen from the consumer's point of view.

The most common mistake consumers make is failing to check out the choices they have - that is, they don't compare one possibility to others. They don't do the comparisons for all kinds of reasons: maybe it's because

they're in a hurry and can't take the time; maybe because information is hard to find or understand; maybe because the difference in cost isn't worth the effort.

Many private organizations, schools, and government agencies supply information and help to consumers and much of it is available online. One place is the
National Institute for Consumer Education, whose Web site [link to http://www.emich.edu/public/coe/nice/] has information on buying or leasing cars, teenagers and money, getting the most out of medical insurance, and many other practical topics. There's also a separate section titled "COMPARE:The First Rule of Smart Shopping," which includes this passage:

Not So Savvy Shoppers

How do you know which product or service is right for you? Everyone plays the buying game, but not everybody plays well. In fact, some consumers don't know the rules of the game.

Surveys about consumer behavior conducted for AT&T Consumer Affairs in 1995 show that many consumers don't have the knowledge needed to be savvy shoppers. In five of the six questions designed to measure actual knowledge of consumer rights, more people gave incorrect answers than gave correct answers. Almost *three-quarters of respondents* [emphasis added] mistakenly believe that money cannot be withdraw from a bank account without written authorization from the account owner.

More than half of the respondents [emphasis added] incorrectly believe that:

- Claims made by companies in TV and newspaper ads must be accurate. (FALSE)
- Consumers have a three day period in which to cancel any purchase. (FALSE)
- A person's credit history is private unless permission is given to make it public. (FALSE)
- Consumers have a right to a full refund for any product that is defective. (FALSE)

Consumers can learn how to be savvy shoppers. They can learn how to distinguish between needs and wants, use effective and reliable consumer information, understand advertising, and make careful decisions. It all takes time, skill, and experience.

Super Detectives Find the Real Deals

Before you go shopping, be a super detective to find the real deals. Here are some clues to use in your search.

- Distinguish between needs and wants.
- Discuss household needs and wants with family members. This discussion should help you reach agreement when making decisions about spending for needs and/or wants.
- Gather information about products or services before shopping.

Information may be available from people who have used the product or service, the local library, on-line consumer information, product-rating magazines, money-management magazines and books, and government agency publications. Armed with this knowledge, you can shop by telephone to compare prices, models, and features.

Ask about the store or company's return and refund policies and complaint procedures. In most cases, a retailer or manufacturer is not required by law to make refunds or exchanges unless the merchandise is defective or was sold through deceptive means. Review available return and refund procedures at the time of purchase so they can be followed if there is a problem with the product. Knowing the appropriate procedure and how to effectively voice your concerns increases the chance of redress of customer problems.

Other online sources hit on the same themes of making comparisons, using information, and avoiding impulsive decisions. One, developed by high school students in the state of Washington, focuses on consumer choices for

teenagers [http://www.wa.gov/ago/ youth/welcome/ index.html]

Consumer World [http://www.consumerworld.org/] serves out information from many sources about product features, prices, customer services, and warranties. For instance, you can get information comparing different refrigerators, cars, computer software, or many other products. As usual, users usually will have to judge for themselves just how accurate the information is.

Assignment

Part One

In the lesson you read about a survey done by AT&T that included the first five of the true or false statements in the list below. For this assignment ask five or more people you know to answer true or false to all eight of the statements. Keep track of each personís answers.

(All of the statements are false.)

1. Money cannot be withdraw from a bank account without written authorization from the account owner.
2. Claims made by companies in TV and newspaper ads must be accurate.
3. Consumers have a three day period in which to cancel any purchase.
4. A person's credit history is private unless permission is given to make it public.
5. Consumers have a right to a full refund for any product that is defective.
6. The highest legal interest rate on credit cards is 18.5 percent.
7. Companies are required to provide consumer assistance services.
8. Product warranties are good for at least one year.

Write a paragraph or more summarizing the results of your mini-survey. Tell how many people you asked and how you asked. (For instance, did you show them the statements printed out or read them aloud to them? Or both?) Describe any patterns you see in their answers. (For instance, was there a question or two that more people got right? Got wrong?) Tell what surprised you or seemed most interesting about the results.

Part Two

The reading claims that comparison shopping is the most important single thing that consumers can do to get good value. Think of a time when you either a) got a good deal for yourself by making comparisons or b) got a bad deal because you didnít make comparisons.

Your example can be as simple or complicated as you want. For instance, many of us have had the experience of buying the iking sizeî package of something like laundry detergent, thinking it would be cheaper in the long run, then found out it really wasnít -- a relatively simple and inexpensive mistake. On the other hand, some of us have signed a year-long lease for an apartment, then found out that heat and other utilities arenít included -- a relatively long and expensive mistake.

Write two or three paragraphs that tell what the decision was, what comparisons were relevant, how you went about making the comparisons (or might have if you actually didnít) and what the results were.

Economics

Lesson Eight

WHAT'S THE ECONOMY DOING?
Part 1

Economic Indicators

For any number of reasons, people often want to keep track of the economy or part of it. A consumer might be interested in whether it's a good time to buy or sell a house, lease or buy a car, or borrow money for college. A capitalist might want to know whether it's the time to buy or sell stock, invest in bonds, or hold on to cash. A politician might take some economic trends into account while deciding whether it's time to change taxes, rebuild highways and bridges, or increase the minimum wage. And of course quite a few people wonder about general questions like *What's happening to us?* or *What's going to happen next?*

Through the years many ways to keep track of the economy have evolved. Today you can find some of these "economic indicators" used in nearly every kind of mass media - tv, newspapers, online services, radio, and magazines.

Most ways for keeping track of the economy use numbers in some way, then compare them to numbers from another time or place. To make any sense of these economic measurements takes some understanding what the numbers stand for and how the comparisons get made.

To see how many economic measurements work, we'll look in some detail at the best known way to measure and compare what's commonly called *the cost of living* and *the inflation rate*. Then we'll take a quick tour through some other measurements that work in similar ways.

Seeing How It's Measured

Most people in the U.S. and most other economies have always faced steadily rising prices for what they buy. That is, most stuff has a higher price now than it did in the past, say a year or several years ago. It's one of the things that older people often tell younger ones. Back in the old days you could buy a brand new car for $900, rent a duplex for $30 a month, get a pound of hamburger for 15 cents, go to an afternoon movie for 9 cents.

As you probably know, a general increase in prices goes by the name *inflation* and it's part of the economics that nearly all people have lived with throughout their lifetimes. Another name for inflation is *increased cost of living;* that is, nearly everything costs more than it used to and so just living costs more from year to year.

It's entirely understandable that someone would want to know the cost of goods and services they buy as well as how those costs are changing - and usually increasing. In one sense, it's easy to know current costs : keep track of every purchase for a week or month or other period of time, add up all the purchases, and there's a good answer.

If the question is slightly different - say *How much did the goods and services I bought cost a year ago?* - the answer would have to be worked out differently. If you had all the records from a year ago, you could still add up all purchases and get the answer. But what if you didn't have a perfect set of records? Or what if the question was about the cost of living five or ten years ago? Or what if you're trying to predict the cost of living six months or a year from now?

Questions about inflation or cost of living are like other important questions people ask. It's much easier to ask the questions than it is to come up with useful answers.

Even if it is hard to find answers, questions about cost of living will continue to be asked because answers are a critical part of making many important decisions. Imagine facing that decision about buying a house. Buying might look foolish or terrifying if everything else you must buy is going to cost five or ten percent more each year, especially if your income doesn't go up too. On the other hand, buying might look very attractive if your income keeps pace with costs. Your principal and interest payment will stay the same for the life of the mortgage; it won't go up with the cost of everything else you buy. (Unless, of course, you have an adjustable rate mortgage which is indexed to ups and downs in interest rates.)

Even if answers about the cost of living are only estimates, most people think it's better than no answers at all.

So now another kind of question comes up: How do estimates of cost of living actually get made? You can see the general idea, although highly simplified, if you tried to design a way to track the cost of what "average" 15-year-olds buy with their own money in a month. A reasonable design might start with a list of goods and services that 15-year-olds are likely to buy every month. To keep the example workable, consider a set of just ten items and the number of each bought per month. Like this:

1. 30 cans of soda
2. 10 bags of tortilla chips
3. 2 magazines
4. 2 video rentals
5. 1 movie ticket
6. 10 bus rides
7. 1 can of hair spray
8. 1 haircut
9. 1 shirt or sweater
10. 1 CD

Then you could go find the prices for each item on the list, multiply by the number bought, add them all up, and record the total. In chart form these steps would look like this:

Item	Price of Each (unit cost)	Number Bought	Amount Spent (unit cost x number)
Soda	.65	30	19.50
Tortilla chips	1.95	10	19.50
Magazines	2.95	2	5.90
Video rentals	1.99	2	3.98
Movie tickets	7.50	2	15.00
Bus rides	.75	10	7.50
Hair spray	4.98	1	4.98
Hair cut	12.00	1	12.00
Shirt/sweater	19.50	1	19.50
CD	14.95	1	14.95
		Total for month	**122.81**

You could do this again on whatever schedule you wanted: every month, every other month, every year, even

every day or every ten years. Regardless of how often you do it, each time you'd check *prices only* and keep everything else the same. That way you'd have a history and maybe a pattern of what's happening to consumer prices for the set of goods and services you picked out.

The next time you check prices, say six months later, the summary chart might look like this:

Item	Price of Each (unit cost)	Number Bought	Amount Spent (unit cost x number)
Soda	.65	30	19.50
Tortilla chips	1.89	10	18.90
Magazines	2.95	2	5.90
Video rentals	2.49	2	4.98
Movie tickets	7.50	2	15.00
Bus rides	.75	10	7.50
Hair spray	4.98	1	4.98
Hair cut	12.00	1	12.00
Shirt/sweater	19.50	1	19.50
CD	15.95	1	15.95
		Total for month	**124.21**

What used to cost $122.81 now costs $124.21. That's an increase of $1.40 in the six month period. These two sentences say pretty much the same thing but in slightly different ways.

But there's another way of saying much the same thing. It takes a little basic arithmetic, but nothing very complicated: first, divide the most recent total by the baseline total, which works out like this:

$124.21 / $122.81 = 1.01139...

The answer to this arithmetic, when rounded off to two decimal places as dollars and cents, is 1.01. The answer can be used in a couple of useful ways. First, you can say that according to your information the cost of the goods and services increased 1 percent in six months, or if you wanted to be more exact, costs increased 1.011 percent. Second, you can also say that what $1.00 bought in the first month took $1.01 to buy six months later.

Then, to make comparisons more convenient, multiply the answer by 100:

1.01139 X 100 = 101.39

Now you can say that what cost $100.00 in the baseline period cost $101.39 in the second period.

You can even see how the baseline period always ends up with an answer of 100. Just follow the arithmetic steps. Divide the baseline amount by itself, because you're comparing the baseline to itself. Then multiply by 100.

122.81 / 122.81 = 1

1 X 100 = 100

The process of dividing the latest total by some earlier baseline total and multiplying by 100 is called *indexing*, and

the process is used in many economic measurements.

The Consumer Price Index(es)

The Bureau of Labor Statistics, part of the federal government's Department of Labor, makes reports every month of information called *the Consumer Price Index*, also known by its acronym the CPI. Actually, the monthly report includes a collection of consumer price information including two nationwide CPIs, one based on data about people who work at wage and clerical jobs (the CPI-W) and another based on data about households in urban areas and takes in people who work in professions, are self-employed, retired and so on. It's called the CPI-U and is the one that gets reported most widely and that's the we'll be talking about from now on.

At rock bottom, the CPI gives an approximate answer to the question How does the general prices of goods and services that most Americans buy compare to prices last month or some earlier month? It seems like a fairly simple question, and in some respects it is. But it involves making some necessary assumptions about matters like these:

Question	Answer
Where do average Americans live and buy things?	In an urban area
Do they rent the place they live or own it?	They rent
What's their main way of getting around?	Public transportation like bus and subway
Are they in institutions like jails or hospitals?	No
Do they buy exactly the same things every month?	Yes
Does the quality of what they buy ever get better or worse?	No
What do they buy each month?	About 400 items or services including foods, clothes, cleaning supplies, medicines, shelter, doctor and dentist services, a little entertainment, school supplies, and so on.

You can see or guess at some of the similarities and differences between the CPI and the simple example of indexing used earlier. The basic process and arithmetic is very similar; the CPI uses a much larger set of goods and services. The CPI also checks prices at many different parts of the country. In fact, data comes from over 19,000 retail businesses and 57,000 households in 85 different urban areas. Put altogether and averaged out, this data gives something called the "U.S. City Average."

The collection of items and services checked each month is called the "market basket." The CPI is based on a market basket of over 400 things. The market basket in our example for 15-year-olds held only ten. But the principle is the same.

[The market basket *represents* or *stands for* what most Americans buy.]

The CPI baseline - the 100 level - is the average for the years 1982 through 1984. So as long as this baseline is used, all CPI comparisons are indexed to that. For example, the CPI for September, 1998 was about 164. For September, 1913 the CPI was exactly 10. *If you think the CPI works well enough for your purposes,* you can use those numbers and make comparisons like these:

- What you could buy for $10 in 1913 cost $168 in 1998.
- What you could buy for $100 in 1983 cost $10 in 1913.
- What you paid $168 for in 1998 would have cost $100 in 1983.

(**The Bureau of Labor Statistics Website** [http://stats.bls.gov/cpihome.htm] about the CPI includes a page that shows the CPI for every month since January, 1913. The site also has a lot of other information on the CPI and other indexes.)

CPI gives a general picture of how prices are changing, It tells what's happening with a combined group of widely used goods and services - the things in the CPI market basket. It also represents a lot of the country and over 80 percent of the U.S. population. So it's earned its place as a reliable indicator of general prices.

However, because it gives a general picture the CPI will not say much about local differences or about specific groups and individuals. Older people as a group, for instance, spend a relatively big part of their income on drugs and medical care but not much on education. College students spend a big chunk on education expenses but not so much on health care. And both health care and college costs have increased faster than other items in the CPI market basket. All of which complicates just what the CPI may mean for senior citizens or college students.

There might be differences from one location to another, too. Fruits and vegetables could be cheaper in Florida than in Minnesota, especially at certain times of year. Rent might be much higher in New York City or Boston than they are in Austin, Texas or Austin, Minnesota.

How the CPI is Used

COLAs - CPI results are used as part of the big economic picture painted by news reporters, commentators, public officials, students, and others. But the CPI also is used in some very specific and practical ways as well. The most important of these are "cost of living adjustments," made by some employers and, above all, by the government's Social Security programs. Cost of living adjustments, called COLAs for short, are changes in wages, salaries, or benefits that are triggered by changes in the CPI. That is, if and when the CPI goes up, pay goes up. Usually this happens once a year on a schedule decided in advance. COLAs act as a kind of guarantee that a group's income will keep up with price increases or at least part of them. Social Security benefits work this way, so many senior citizens watch the CPI carefully and understand it thoroughly.

Measuring Inflation - The CPI is the most commonly used measure of inflation, and inflation is the price pattern nearly everyone lives with and expects. "Keeping up with inflation" is what most consumers try to do; "getting ahead of inflation" is what most consumers would like to do. In general, keeping up means being able to afford tomorrow what you can afford today. Getting ahead means being able to afford more or save something for the future. Of course, there are plenty of variations of keeping up or getting ahead. One is to get along with less now so you can save for the future.

Since the mid-1970s quite a few Americans have fallen behind inflation. Their incomes have not kept up with increasing prices and so they cannot afford what they used to. For example, between the baseline years 1982-84 and the fall of 1998, the CPI went up 63 percent. Anyone whose income didn't increase by about the same percentage lost ground. One economic label for this serious situation is "loss of purchasing power."

Measuring the Opposite of Inflation - Although the CPI is usually thought of as measuring inflation, it really measures price patterns. So it is equally effective measuring prices going down or staying the same. We think of CPI measuring inflation because we're used to prices going up, sometimes slowly and sometimes rapidly, but always rising. But there have been times when general prices have gone down and kept falling The most recent dramatic and severe *deflation* in the U.S. was during the 1930s, when the country and most of the world went

through the Great Depression.

At first glance, widespread price decreases look like a good deal for consumers. But of course, prices don't fall without some reasons, and a basic reason for most deflations is that many people have lost purchasing power and just can't afford to buy much no matter how low prices go. Severe deflation causes at least as much human misery as inflation.

At the time this was written (fall of 1998) some economists were very worried about deflation spreading and deepening. At that time Japan, the second largest economy in the world, was facing many serious problems, one of them that consumers were buying much less than expected and prices were starting to fall. Other Asian economies faced similar problems. The spread and deepening of such problems is what the worried economists had in mind.

If deflation started in other economies including the U.S., the CPI and similar measurements would go down instead of up. And that would be a whole new set of conditions and problems for most people.

Calculating "Real Dollars" - Maybe you've heard the expressions "A dollar doesn't buy what it used to" or "A dollar doesn't go as far as it used to." Both expressions say something about what inflation does to the value of money. If there weren't some way to adjust for inflation's effects, comparing prices and cost of living from one time to another would be almost impossible. By using the CPI or an equivalent index, the value of money can be converted to what Americans call "real dollars." Specialists usually use the terms "inflation-adjusted dollars" or "constant dollars" instead, but the idea is the same.

When converted to real or constant dollars, the price history of some goods or services looks surprising. Take the price of gasoline in the United States. In 1974 gasoline prices were around 50 cents per gallon; in 1998 prices were around $1.10 per gallon. But in constant dollars, the 1998 prices are lower. That is, after adjusting for inflation, gas was cheaper in 1998.

[Another way of making a price or cost of living comparison asks "How long did a person have to work to buy this?" The process uses prices and income information from one time to compare to another time. Sticking with the gas prices as the example, it would go like this:

In 1974 gas cost 50 cents a gallon and the average hourly income was $5.00 per hour. So somebody earning the average wage had to work one-tenth of an hour to buy a gallon of gas. That's six minutes.

1998 gas cost $1.10 a gallon and the average hourly income was $13.20 per hour. Somebody earning the average wage had to work one-twelfth of an hour to buy a gallon of gas. That's five minutes.]

Basic Questions to Ask About Economic Measurements

Going through the CPI with some care produced a few basic questions that had to be answered. And those questions can be asked about other economic indicators, too:

What is the basic information used and where does it come from?

The CPI uses prices for a market basket of approximately 400 goods and services that most Americans buy each month. The information comes from retail businesses and households in 85 different urban areas of the U.S.

Is the information indexed? If it is, what's the "100" baseline?

The CPI is indexed to market basket prices during the years 1982 to 1984.

What are the main shortcomings of the indicator?

The CPI uses data from urban areas only. The market basket might not be representative of all consumers. The CPI doesn't try to take into account changes in quality or value.

What are some ways the indicator is used?

Social Security benefits and some wages are directly keyed to the CPI. If it goes up, those benefits and wages go up too. The CPI is the most commonly used inflation indicator. It's widely used as part of the picture of general economic conditions. CPI information is used to calculate inflation-adjusted prices of all sorts of goods and services.

These questions will be used in the next lesson, which takes a quick look at several other widely-reported economic indicators.

Economics

Lesson Nine

WHAT'S THE ECONOMY DOING
Part 2

Common Economic Indicators

As its name says, The Consumer Price Index (CPI) watches the price consumers pay for goods and services; it is concerned with *demand* part of the supply and demand system you read about earlier. Although consumer prices are a major part of any market economy but they're still only one of many factors that contribute to a system as huge and complex as the U.S. economy. Each factor can be looked at separately, so as a result, there are hundreds of economic indicators that help create a picture of what the economy is doing or where it's heading.

Many indicators are used only by specialists, but a few get reported regularly in mass news media like newspapers, magazines, television, radio, and online services. This lesson will describe a handful of the most common ones.

Gross Domestic Product (GDP)

If you have in mind that the CPI focuses on buying, you might guess that some other measurements would focus on what's sold or produced, and you'd be right. One such measurement is the Gross Domestic Product.

High school textbooks, if they mention Gross Domestic Product at all, usually say something like "the GDP is the total value of all the goods and services produced in the United States." It's OK to say that, but once to stop to think of it, trying to gauge total production is a very ambitious and complicated thing to do.

Who would be in a position to estimate or count all those goods and services? Where in the world would they begin? In other words, as you read in one of the questions at the very end of the last lesson: **What is the basic information used and where does it come from?**

Like the Consumer Price Index, a federal agency puts together and reports the GDP. Specifically, it comes from the Bureau of Economic Analysis, part of the Department of Commerce, and it's derived from a very large, carefully designed set of accounting procedures that collect and organize information about business transactions. The system is called the National Income and Product Accounts. This system doesn't collect information about transactions one at a time. Instead, it gathers data that adds together many transactions - economists and other statisticians call this "aggregating" the data - and puts them into different categories. Then data from all the categories is added together to get a grand total called the GDP. The final number is so large that it's almost meaningless by itself, so the GDP usually gets reported as the percentage of change from one year to the next. A newspaper, for example, might report that the GDP grew at an annual rate of 2.6% during the last quarter. That means if the GDP grew for a whole year at the same rate as it did during the three-month period (one quarter of a year) being reported, the year's total would be 2.6% higher than the year before.

At the same time that it's doing this gigantic job, the Bureau of Economic Analysis wants people to know some of the limits built into the indicator. First of all, the GDP is an estimate, not a literal measurement. There are simply

too many transactions - the economy is much too large - for a complete accounting. A second important limit is that there is no accounting for bartering or for "underground" transactions such as unreported or illegal ones. Nor does the GDP data take into account stock, bond, or other strictly financial transactions - on the reasoning that these transactions don't directly produce any goods or services.

The BEA has to solve another technical problem when gathering data. To see the problem, think about this situation: A company like Ben and Jerry's buys ingredients for its ice cream, such as sugar, cream, milk, fruit, chocolate and more. Getting these ingredients together takes a whole series of transactions, actually a series for each ingredient. But for now, think only about the sugar. Ben and Jerry's might buy it from a supplier, who buys it from a distributor/packager, who buys it from a wholesaler, who buys it from a processor, who buys it from a farmer. So anyone keeping track of all this faces the question *How many times and it what way should the sugar be counted?* The BEA's solution is to count only the value added to the original price at each step along the way. Going back through the chain of transactions the opposite direction shows this. The farmer (or corporation) produces sugar cane or beets and sells it for, say, 12 cents a pound. The processor buys for 12 cents, refines the cane or beets into products like granulated sugar, and sells to a wholesaler for 15 cents a pound. The processor adds 3 cents per pound value at that step. The wholesaler stores the sugar and eventually sells it to distributors for 17 cents a pound, adding value again. The BEA counts only the value added as the product moves through its markets.

Sticking to the *added* value avoids counting the value more than once, which for short is called double counting. The BEA doesn't count transactions for used goods, like used cars or machinery or even used aircraft, again in order to avoid double counting.

Intentionally sticking with transactions for directly produced goods and services, focusing on value added in a chain of transactions, and avoiding double counting - putting all that together means that the GDP accounts for only part of the total transactions in the economy.

Still, it takes into account a huge number of transactions; many more than any other economic indicator. That's why so many economists and other people with economic interests use GDP information, especially to see the general direction of the economy.

With some arithmetic, the GDP gets turned into an index too. In its indexed form, the GDP lets people see inflation from the point of view of production; that is, it's an indicator of how the *costs of production* change, which usually (but not always) move along the same path as the *costs of consumption* summarized in the CPI.

Indexing is useful because the GDP changes for two basic reasons. One is the price of goods and services. If prices go up, they push the GDP higher and vice versa. The other reason is how many goods and services the economy is producing. If more is produced, the GDP will rise; if less is produced, it will shrink. Obviously, both prices and amounts can change; in other words both can contribute to changes. *But more than anything else, the GDP is trying to estimate changes that come from the second reason - the amount of production.* Indexing gives a way to factor out the results of inflation or deflation and focus on changes in production.

Unemployment Reports

In market economies the number of people who have jobs is used as another indicator of how well the economy is doing. Almost everywhere and almost all the time, the conclusion is the same: in good economic times, a lot people have jobs and in bad times, a lot of people are unemployed.

Saying "a lot of people have jobs" or "a lot of people are unemployed" - as in the sentence before this one - gets at the general idea , but those ideas need to be more specific before they can be counted and reported. Parts of the specification have to answer questions including *What counts as being employed? What counts as being unemployed? What is considered "a lot"?* In the U.S. formal specification comes from a combination of sources: laws passed by Congress, regulations and practices developed by the agencies doing the work, and professional habits of people who use the reports.

The Bureau of Labor Statistics, the same government agency that tracks the CPI, makes the employment reports as well. Much of the information comes from monthly surveys that cover 60,000 U.S. households, asking a series of questions about employment and employment seeking. Additional information appears in the full report, but most of what gets reported in mass media is from the surveys.

Although the report includes estimates of the *number* of people employed and unemployed, the number that gets the most attention is *a percentage*. On the day the report is released, you might hear or read something like "The unemployment rate rose to 4.9 percent last month, according to today's report from the Department of Labor." One obvious question about such a report is What is this percentage?

The survey asks about every person living in the household. Using survey information, each person is put into one of four categories:

- Those who cannot choose to work. They might be too young or in an institution like a prison, mental hospital, or treatment center.
- Those who do not to work. Their reasons are their own business.
- Those who want to work and have some job
- Those who want to work but don't have a job

As an example, use these numbers for a survey of 60,000 households:

Total number of persons in the households: 117,600

- **Number who cannot choose to work: 51,744**
- **Number who choose not to work: 15,288**
- **Number who want to work and have a job: 47,534**
- **Number who want to work but don't have a job: 3,034**

These categories are used - sometimes by themselves but usually in some combination - in the public reports made each month. Usually labels like the following get used:

Labor force - All the people who want to work and are available. One quick way of finding that is to add together categories three and four - those who want to work. In the example, the labor force is 50,568 (47,534 + 3,034).

Noninstitutional population - All the people not in category 1. A one-step way to find that is to subtract the number in category 1 (51,744) from the total number in the survey (117,600). The answer is 65,856.

Unemployment rate - The percentage of unemployed people *in the labor force*. Divide the number in category four (3,034) by the number in the labor force (50,568), then multiply by 100 to make it a percentage figure. The answer is 5.99 percent.

Plenty of questions come to mind when thinking about the unemployment rate, but it's hard to think of one that hasn't already been asked and answered. (We might not like the answers or think they don't make sense. But still, they are answers.) For instance, you might ask questions like these:

How long do people have to work to be counted as employed for the month of the survey? The answer is if they are working during the week that includes the 12th of the month, they're counted as employed for the whole month.

Well, if you don't work during the week of the 12th, does that mean you're unemployed? Right.

Even if you're sick that week and don't work? Or on vacation? Oh, that. You're still counted as employed then.

How young is too-young-to-be-in-the-labor-force? Answer: under 16 years of age.

If you work for room and board but no pay, are you employed? Nope. Has to be for pay.

What if you're really discouraged and tired of looking for a job. If you haven't looked for work lately, are you still counted as being in the labor force? Answer: Maybe not. If you haven't looked for a job during the past four weeks, you're not counted in the labor force.

If the unemployment rate is, say, 5.99 percent, does that mean that 5.99 percent of Americans are unemployed? No, not exactly. Better to say it means that's the estimated percentage of people in the American labor force who are unemployed.

Don't all these figures get messed up at times? When students who have been working for the summer go back to school, or when a hurricane shuts down businesses for weeks, or when a big strike is going on? The figures can be distorted. The Bureau of Labor Statistics adjusts some figures, like seasons of the year, to keep things more consistent.

Despite its limits, the unemployment rate is useful, partly because it gives a decent estimate of a very important factor and partly because it is a careful, consistent estimate. As with other indicators, consistency is very important. That is, the unemployment survey may not measure exactly what we wish it would, but it measures what it can and does it the same way all the time.

One important way the unemployment rate gets used is to estimate related things. When the unemployment percentage goes way down, employers might expect future trouble finding workers at all or may have to increase wages. When the percentage goes way up, workers might expect much more trouble finding jobs and be willing to work for lower wages.

Stock Market Indicators

Every business day news reports have something to say about how "the stock market" did. Millions of people around the world get those reports and to some of them it is very important information.

"The stock market" is in quotation marks because there are many different stock markets, so to refer to them as one thing is a kind of make-believe. But there is one stock market and one indicator of its performance that's so popular that together stand for stock markets in general. That's the New York Stock Exchange and what's called the Dow-Jones Industrials average (DJI for short). Thousands of stocks are traded on the New York exchange and numerous averages and indexes of them are worked out. But when a news report says "Stocks closed at 9,000 today," it literally means that was the value of the DJI when the New York Stock Exchange closed.

The DJI uses a simple approach to tracking stock prices. It's based on stocks for a small number of companies considered some of the very best in the United States and traded on the New York Stock Exchange.

To some people, including some economists and stock specialists, reliance on the DJI alone is not a good idea. They point out that the number and the kind of stocks averaged to calculate the DJI makes it a special or "narrow" indicator. It uses only 35 stocks out of the thousands traded and all of them are large, usually prosperous and profitable, stable manufacturing companies - what are called "blue chip" firms - and certainly not representative

or typical of the entire market.

Despite these and other criticisms though, the DJI remains vastly popular, at least partly because it's been used for so many years. Its long life gives people a consistent benchmark - a kind of indexing - to use for a general idea of market performance and even for making some rough comparisons. For instance, the DJI in 1968 was around 600; in 1998 around 9,000.

Curiously enough, the DJI is just one Dow-Jones indicator. Another one averages and tracks "utilities," which include companies that provide electricity, water, and other basic services. A third one is for "transportation" stocks, historically railroads and shipping lines. The original idea, still held by some users today, is that the different averages, looked at together, give a good composite picture of what the New York Stock Exchange is doing - much better than any one of them alone.

Other stock market indicators have some popularity too. Some of them also track the New York Stock Exchange but do it differently. For instance, the Standard and Poor's 500, called the S&P or S&P500, uses 500 stocks compared to the DJI's 35. So the S&P500 is considered a much "broader" indicator - that is, more like the entire market. The S&P500 is included in most daily financial news reports now.

The NASDAQ, an average that reports on a completely different stock market, is reported every day as well. NASDQ - the letters stand for National Association of Securities Dealers Automated Quotation - is a market heavy in stocks for technology companies including many computer and computer-related ones. People often use the NASDAQ average, along with other information, to keep track of how the high-technology parts of the economy are doing.

Averages from stock markets around the world are reported regularly nowadays too, usually including reports from London, Tokyo, Hong Kong, and Germany. Some times and sources report from many other places as well: France, Russia, Indonesia, Singapore, Australia, among them.

Reports, Reports and More Reports

Although this section looked at a few economic indicators from among the dozens - maybe hundreds - that get produced and distributed each day. If you look at the business section of any large city newspaper or at any number of Websites you will find many more indicators.

Assignment

In both Lesson 8 and Lesson 9 you read that a few economic indicators get reported regularly in mass media such as newspapers, television, radio, magazines, and Websites.

As just one example here is the first sentence in an Associated Press story (January 29, 1999) about the GDP in the United States in the last quarter of 1998:

> WASHINGTON (AP) -- The U.S. economy grew at a breakneck 5.6 percent annual rate during the final three months of 1998, ending a year that saw U.S. prosperity undiminished in an economically troubled world.

(The first sentence or two of a news story is supposed to capture the attention of readers and ***lead*** them into the rest of the article.)

This Associated Press article appeared on the front page or at the top of the business section in dozens of U.S. newspapers that day including the New York Times, Washington Post, Minneapolis Star Tribune, Los Angeles Times, and Chicago Tribune.

Your assignment is to find six examples of mass media reports or comments based on economic indicators.

Your examples have to include at least three different indicators. For example, you could give four based on the Dow-Jones Industrials, one on the GDP, and one on an unemployment report.

For each example do the following:

1. Tell where the mass media piece appeared. If it was in a regular newspaper or magazine, write something like "The Minneapolis Star Tribune; March 11, 1999; page C 1." If it was part of a radio or television program, write something like "WNYC Television News at 11:00; March 11, 1999." If from a Website, give the name or URL along with the date given in the material such as "WWW.washingtonpost.com; March 11, 1999."

1. Clearly identify which economic indicator (or indicators) the piece is dealing with.

1. Summarize what the piece says or suggests the indicator is indicating. That is, what is the indicator saying about the state or direction of the economy?

1. Point out any interpretive or opinion words used. For instance, in the Associated Press article quoted above the word "breakneck" suggests the rate of growth is very fast and maybe risky.

After giving all your examples tell how long you had spend finding them and how difficult you think it was to do this.

Look for sources around your home, at work, in offices or waiting rooms, or even in restaurants or on buses.

Above all, libraries! You probably can get all the examples you want in one trip to a library.

Here are few suggestions about the kinds of material that will contain examples:

- General newspapers, especially daily papers. Economic news sometimes is on the front page. If the paper has a business or finance section, be sure to look there.

- "The Wall Street Journal," a newspaper that specializes in business and economic news. It's published in New York but is distributed all over.

- Magazines, especially weekly news magazines like Newsweek, Time, or U.S. News and World Report or business magazines like Business Week and Forbes.

- National news on television or radio. Nearly every broadcast on business day will have at least a short report about stock market indicators. (Check television or radio listings for programs specializing in business news.)

- Newspaper and magazine Websites. For example, www.washingtonpost.com, www.startrib.com, www.the_newyorker.com, and so on. A general listing of newspapers and magazines online is at The Electronic Newstand homepage, www.enews.com . Yahoo and other indexes have listings too.

Economics

Lesson Ten

APPLYING IDEAS AND LANGUAGE FROM THE COURSE

A Case From Everyday Business

To end this course you'll read a magazine article about a business whose major product is a common, everyday (almost literally every day) item: razor blades. Although not in the least exotic nor especially romantic, razor blades are a big business for the simple reason that millions of people use them each day and, of course, buy them regularly. Using a few of the ideas and words from this course, there is a very large market, a huge demand, and a chance for major profit to a supplier that can build a competitive advantage in the marketplace.

Using the ideas and words from this course. That's the main point of this concluding lesson. More specifically, you're asked to do that as and after you read the article, which is titled "The Billion Dollar Blade." James Surowiecki wrote the article and it appeared in the New Yorker Magazine for June 15, 1998.

Some notes to readers accompany the article, and in them you'll find a few examples of ideas and words from the course being used to explain or understand something. But there are many other places where course ideas apply too.

Just to get you started, here are a few ideas that you probably can use as you read:

Market Marketplace Consumer Consumer choice Competition Price

Value Capital Investment Commodity Commodity Pricing Self-interest

Transaction Market Forces Supply/Demand Demand/Price Curve Substitute

Product Differentiation Brand Loyalty Comparison Shopping Inflation

THE BILLION-DOLLAR BLADE *How the Gillette Company reinvented the razor - and itself.* BY JAMES SUROWIECKI	**Notes to the reader**

I. Miles Yeoman is a tinkerer. His skin is pale pink, his hair is a faded brown, and his metal-rimmed glasses are thick enough to obviate the need for safety goggles. He spends his days in a small lab room, where he has put together a high-powered stereo microscope, a laser-guided measuring device, and a monitor able to reproduce 3-D images, and has jury-rigged them into a machine that can tell you, with remarkable accuracy, how well you've shaved.

obviate the need: eliminate the need

jury-rigged: set up for specific or temporary use

At forty-times normal magnification, a freshly-shaved face looks something like a clear-cut forest seen from an airplane. Skin appears uneven and craggy, riven with streaks of broken red, and interspersed with black stumps cut at irregular angles. Peering through his stereo microscope, Yeoman guides the laser point to each stump, and marks its tip with a yellow dot. Later, he'll download the data into a computer, which will tell him just how much hair is cut by each stroke of the Gillette Company's newest razor.

Any shaved skin - legs or arms, for instance - might look like this too.

Yeoman works in one of Gillette's major research-and-development laboratories, which is known as U.K.R.D.L., and is situated on the outskirts of Reading, England. There are only three real concerns here: skin, hair, and metal. Reading, the Los Alamos of shaving, is where the world's most advanced technology in imaging, metallurgy, and design is brought to bear on that most mundane of objects - the stainless steel razor blade. It's the place where Gillette's newest razor, Mach 3, was born.

The Los Alamos National Laboratory in New Mexico is a major - and famous - research facility. It's where the first atomic and hydrogen bombs were developed and built.

The product of seven years of continuous effort and an unprecedented seven hundred and fifty million dollars in manufacturing and development costs alone, Mach 3 will make its debut in July and by the turn of the century should be the most popular razor in America. Within two years, Gillette should be selling 1.2 billion Mach 3 blades each year. And Gillette needs Mach 3 to succeed in order to sustain the rapid profit growth that has made its stock among the fastest-climbing blue chips of the decade, and the company itself a dramatic study in corporate self-renovation. In the next few months, a deluge of Mach 3 ads will hit television and magazines. If Gillette prevails in the marketplace, though, it will be not because its advertising is superior to the competition's but because its razor is.

Add advertising costs to the 750 million dollars mentioned here. Then you can see why the article is titled "The Billion Dollar Blade."

This article first appeared in the June 15, 1998 issue of "The New Yorker."

This paragraph is loaded with important terms from economics and business: *profit, stock, blue-chips, marketplace, and competition.*

The last sentence of the paragraph suggests that sometimes products succeed because of their advertising, not because of their quality. This comes up later in the article.

II. Housed in a low-slung red brick building that looks like a lot of junior high schools built in the fifties, U.K.R.D.L. is a far cry from the gleaming

fifties, U.K.R.D.L. is a far cry from the gleaming modernist hives of most corporate labs. Its employees wander around on industrial-quality linoleum floors, and gossip about balky spectroscopes by a coffee machine that looks left over from the days of the Macmillan government. They wear short sleeved dress shirts and white lab coats. Old-fashioned safety posters adorn the walls; one shows a bevy of hands erupting from a toolbox, with the legend "These are your most valuable tools." As Yeoman downloads data from his stereoscope rig, all around him other scientists and engineers are doing similar work, using handmade machines that have names like "hair response rig," "strain-guard razor," and 'laser Raman spectroscope." When you roll the "robust friction device" - a razor with wires sprouting from it - across your face, a nearby computer screen fills with numbers indicating how much friction it's exerting. A few rooms down the hall, a young engineer sits at a Silicon Graphics workstation and applies himself to "finite element modeling," which means (as he helpfully explains) that he's trying to duplicate "the interaction between shaver, hair, and skin." I peer over his shoulder at what looks like an animated sequence of a blade pulling and cutting. If the machine works, you should be able to see how well a blade prototype performs without actually making one. It separates workable ideas from whimsical ones.

Harold Macmillan was prime minister of Great Britain from 1957 to 1963.

A *prototype* is a preliminary version of a product, made for testing. Doing a prototype on a computer saves the time and cost of actually making one.

U.K.R.D.L. is attached to the Gillette factory, and when you walk through the lab's entrance you can hear the hum of large machines and the beeping of forklifts. It's all very grimy and real, and it carries a not very subtle message to the boffins: Don't just come up with cool ideas. Come up with cool ideas we can make.

"We're looking for the right sort of scientists," says John Terry, who was the director of the lab when the preliminary work was done on the Mach 3, and who is now the director of its Boston counterpart, BRAD (for Boston Research and Development). "If their aim is solely to create knowledge, it won't work for us. We're here to spot a thing that will make a difference in performance - that will lead to a new product." Terry, an Englishman with a shock of white hair, bright-blue eyes, and a ready laugh, is a thirty-year Gillette veteran. He has an elfin manner, as if playing with razors all day long were just more fun than any one person should be allowed to have. He earned a doctorate in metallurgy, worked on blade technology at Gillette when he was in his late twenties, and then, in 1965, joined the government, which had embarked on a crash program to bring the economy into the space age. "I got to talk to people in all these different industries and study various problems in

Watch to see whether Terry himself is a scientist devoted to developing new products.

industries and study various problems in manufacturing and technology," Terry explains to me as we walk back to the Reading lab after lunch in the company's cafeteria. Yes, but why abandon rocket science for ... razor blades? There's a hint of reproval in his reply: "You want to be somewhere where you're actually *producing* something, don't you?" III. Gillette never launches a new razor without having its successor in the pipeline. So with the SensorExcel about to be launched, Terry and his colleagues had to top their own best efforts. SensorExcel and its predecessor, Sensor, were the most popular razors in Gillette's history, but they retained a twin-blade configuration that the company had been using for twenty years. Gillette scientists wondered if something more dramatic might be possible.	Think about this paragraph as a description of just how competitive the company is. And who it competes with.
"We knew that if you had more blades you'd be able to cut more hair," Terry said. "But we found that what you gained in efficiency you lost in comfort, irritating the skin too much in exchange for the closeness. People wouldn't pay for that - too many knicks and cuts. Then, one day in 1991, we were in the lab and Bernie Gilder said, "What if we lower the trailing blade?" Gilder was no whiz kid. He had been with Gillette for decades, and his insight was the product of what Terry calls "tacit knowledge" - knowledge that you acquire only after spending a long time in those linoleum-floored shaving labs. Still, in the incrementalist world of shaving technology his idea counted as a bona-fide apple-on-the-head brainstorm.	*incrementalist:* making new things by adding to an existing thing *bona fide*: authentic or actual
Every shaving engineer knew why two blades were better than one. As a razor moves, it makes the skin	

bulge, forcing hairs up and out of their follicles. The first blade catches the hair, pulls it up, and slices through it, after which the hair starts to retract. Before it can retract fully, though, the second blade catches it and cuts below where the first blade did. A third blade would do the same, but it would tend to get *too* close. Gilder's insight was that by setting up each blade at a different angle - a difference invisible to the naked eye - the third blade would be able to get closer to the skin without tearing at it.

The new three-blade model was code-named Manx (the coat of arms of the Isle of Man has three legs), and when Miles Yeoman ran it through his reflex stereo machine he found that it removed forty per cent more hair than Gillette's best product, the still brand-new SensorExcel. Then the robust friction device proved that the razor was also exerting less drag on the face. In other words, Manx seemed to offer a shave that was both closer and more comfortable, which is the Holy Grail as far as shaving techies are concerned. In its first "out-plant" shaving test, Manx was a huge hit with consumers, too. "So we knew we had a winner," Terry says, a wide grin creasing his face.

These are the machines mentioned earlier in the article.

Both Gillette's corporate culture and its marketplace strategy, though, are based on technological supremacy in shaving, and from this perspective Manx had one major shortcoming: its blades, like those of Sensor, were made out of the same material - steel coated with a platinum-chromium alloy - that Gillette had been using since the late nineteen-sixties. Rolling out a new razor with technology that was almost thirty years old hardly accorded with the company's revived ethic of innovation. So, in late 1993, Gillette's C.E.O., Alfred Zeien, laid down the edict: Mach 3 would deploy an entirely new blade technology. It was up to the scientists, of course, to figure out what that might mean.

Compare this to the idea of making a product (or service) stand out, which you read about earlier in this course.

Scientists for other razor companies face the same problem, of course.

The problem the Gillette scientists faced was that the thinner the edge is, the more easily it will cut hair, but a thin edge is also more fragile, so you get to the point where running into a hair will actually break the edge off. Coat the blade with a super-hard substance, though, and you can make it sharper.

Although it's not said directly, the implication is clear: a hard coating makes it possible to have sharper blades without having the edges break.

The scientists had a great candidate - a substance called diamond-like carbon, or DLC. But DLC wouldn't bond with steel, so when you tried to coat a blade with it the stuff simply slipped off. The metallurgists in Boston realized the trick was to put between the DLC and the steel something that both substances could bond to. Knowing that they had to find that something in time to meet the approaching

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deadline, they worked weekends and nights, testing every possible candidate until they arrived at a metal called niobium, which bonded nicely with both DLC and steel. Manx now had blades that were two or three times as hard as steel and that cut hair better than anything in the world.

IV. Technological domination, -- la Manx, has been the basis of Gillette's success over the last decade, but its value was hard learned. When Bic introduced disposable razors in the late seventies, Gillette responded to the threat by entering the disposables market and swiftly establishing itself as the dominant player. But that wasn't a title the company was proud of. "It was commodity hell," says John Darman, whose official title is head of male shaving for the North Atlantic Group. Darman is a rotund, deeply tanned man with a mustache (a very well groomed mustache, you can be sure), who bounces from topic to topic as we sit at a conference table in the Gillette corporate offices high up in the Prudential Center in Boston's Back Bay. "When you're in the disposables market," he goes on, "you're competing on two things: convenience and price. And that does not play to the strengths of a value-added manufacturer. Disposables were those blue plastic things you threw away. We were teaching our customers to focus on price and to forget about quality."

Darman knew what that was like from his own experience. A native of Cambridge, Massachusetts, who has spent his entire life within a twelve-mile radius, he came to Gillette in the mid-nineteen-seventies, and for his first fourteen years he tried to market the company's "personal care" products, including such hair products as Toni perms, The Dry Look, and Silkience. That was a lesson in what it's like not to be technologically superior to your competitors. "We had no competitive edge, no technological advantage," Darman tells me. "As good a marketer as I am, and as my colleagues are, we were stuck in a positioning-reliant, unpredictable business. It made it easy to understand why you don't want to rely on marketing."

Commodity hell is exactly what American corporations fear most, because when your product is a commodity - essentially interchangeable with all its competitors - the only way to get market share is

to cut the price. That means that your profit margin is continually dropping.

The way most corporations try to avoid commodity hell is through advertising. If you can create a strong enough brand name, the idea is, you can charge more for your product, because people will pay for the brand. And certainly advertising was a crucial part of the turnaround that Gillette embarked on in early 1989, when it abandoned all its advertising for disposable and introduced the "Best a Man Can Get" advertising campaign. But the turnaround ultimately succeeded because the campaign was followed by a product, Sensor, that was strong enough to transform the way people thought about shaving itself.

Imagine a sandwich.

In the standard narrative of corporate renewal, this kind of turnaround happens when the board of directors goes outside to bring in a hard-driving C.E.O., preferably with a background in soft drinks and telecommunications, who replaces the dead-wood with a fresh corps of mavens from McKinsey. The fact is, though that the turnaround was orchestrated entirely by Gillette lifers. Gillette's cadre of seasoned engineers has been able to make advances by building on a rich, if undocumented, history of trials and errors; when it became clear that the company had veered off course, its veteran managers knew what would work, because they knew it had worked. The "new" Gillette was the old Gillette.

Remember "commodity pricing"? It was one of the ideas used earlier and this is an example of the problems.

One of the lifers who put the company back on course was a vaguely Pattonesque man named John Symons, who, as the head of Gillette's North Atlantic Group in the late eighties, embarked on a crusade against the disposables and all they represented. In 1987, arriving at Gillette's Boston headquarters for a divisional review session, he listened patiently while the man in charge of refillables got up and gave a three-hour presentation. Then the man in charge of disposables, Bill Flynn, rose and began to speak. In his hand, he held a bag of ten Good News disposable razors - those blue plastic things - for show-and-tell purposes. He had barely started when Symons took the bag of disposables from him, threw it on the floor, and crushed it beneath his heel. "That is what I think about disposables," he said in his low, gravelly voice. "Your review is

not required."

Watch how the article next goes on to elaborate this balance between price and quality.

Darman explains, "We wanted to get men back to the way it was before the nineteen-seventies, when they thought of razors as fine instruments. That's why Sensor was so crucial. It was metal, which gave it the fine-instrument feel that we wanted. But it also gave

In other words, it was not advertising alone that made the campaign succeed. It was the

fine-instrument feel that we wanted. But it also gave you a much better shave."

Sensor's superior performance, in turn, was what allowed Gillette to charge more for it than for its predecessor. This gratifying experience was what inspired Al Zeien's decision that Mach 3 would inaugurate a new blade technology. That decision also fitted into a broader vision laid out by Zeien, a onetime engineer who took over as C.E.O. in 1991 after twenty-two years at Gillette. Zeien identified what he liked to call growth drivers - R & D, capital investment, and advertising - and he committed the company to increasing total spending on them at the same rate that the company's sales were growing. Moreover, Zeien saw to it that Gillette would make products only in categories where Gillette could be the world leader - today 1.2 billion people use Gillette products - and where the market would, in Darman's words, "yield to technology." Under Zeien's tenure, Giliette's market capitalization has risen from six billion dollars to nearly sixty billion. And shaving is perhaps the only business in the world where the most popular product is also the best: Gillette is simultaneously the Porsche and the General Motors of shaving.

That curious circumstance has essentially given Gillette a license to print money. Last year, it sold 2.9 billion dollars' worth of razors and blades, earning 1.2 billion dollars in profit on them. Its razors are not just more popular than the competition's - Gillette has sixty-six per cent of the male shaving market, and seventy per cent of the female market - but also more expensive.

The great virtue of making top-of-the-line razors, as opposed to top-of-the-line cars is, after all, that a hefty profit hike for the company - Gillette will charge thirty-five per cent more Mach 3 than for SensorExcel - doesn't register much with customers. Indeed, in the course of its massive consumer testing of Mach 3, Gillette found that people said, in effect, "Twenty-five per cent, thirty-five per cent - what's the difference? Just give us the razor.

Darman mentions this, then levels his eyes at me as if he were about to divulge the secrets of the temple. "Look, everybody else out there is lower-priced," he says. "We're not doing this out of the goodness of our hearts. We're saying that we'll deliver performance and ask you to pay a higher price." As his pen races across a white notepad, he shows me that since Gillette's newest razor costs more than its predecessors, the company makes an additional profit for every Gillette customer that it can persuade to upgrade. Even more profitable, of course, are converts from disposables or from Gillette's

campaign succeed. It was the combination of advertising and a strong new product.

This sentence is business language for some practices common during the mid-1990s - for example, hiring executives from the very competitive soft drink and telecommunications businesses. Gillette was different.

lifers: lifelong employees

Pattonesque: like George Patton, a World War II U.S. army general famous for being relentless and out-spoken.

R & D: Research and development

Capital investment: New facilities and equipment

converts from disposables or from Gillette's competitors. He glances at the figures on his notepad and his face opens into a grin. "You know," he says, as if only now making the happy discovery, "this is a very profitable business."

V. Darman's main role in development of Mach 3 was the design memo that his department gave Gillette's chief industrial designer, Mike Gray, who has been with the company since the early sixties and still talks about his craft with an air of wonderment. Darman told Gray, who had designed Sensor, that he wanted something masculine, high-tech, and aerodynamic. Gray already knew that, for engineering reasons, the razor had to have a very wide head and a forward pivot. And then he listened to what people who were shaving with early versions of Manx were saying.

"I heard that in some early shaving tests people compared the razor to a paintbrush," Gray tells me. "It was so effortless, they said, that it felt as if you were *painting* your beard off. So I took a paintbrush, and put a razor cartridge in the bristles, and at a meeting I pulled out the paintbrush and showed how as you drew the brush along a surface the cartridge head would swivel and bounce back into position."

It was also clear from the beginning that Mach 3 had to have a distinctive metal finish. To make sure that the plating company they were using got it right, Gray suggested that its engineers go out and rent the movie "Terminator 2," with its computer-generated liquid-metal villain. "Once the guys at the plating company saw the movie, they knew exactly what I was looking for," he says. "It's not chrome. It's almost mercury-like in its finish, and it should seem as if metal had just been poured over it."

The aerodynamic look of the razor does make a happy match with its new name, which was chosen after an elaborate filtering system had pared an original list of several hundred down to four - Triad, Synchro 3, Vector 3, and Mach 3. Besides being consumers' favorite, Mach 3 resonated with all the themes Darman wanted to strike with the product's three-hundred-million-dollar advertising campaign.

Clever names, slick advertising, powerbranding: in today's business world, these are taken to be the only things that really count. "Of all the things that your company owns, brands are far and away the most important and the toughest," the advertising man Jim Mullen claims. "Founders die. Factories burn down. Machinery wears out. Inventories get depleted. Technology becomes obsolete .... Brand loyalty is the only sound foundation on which business leaders can

This is a very high rate of profit - over 41 per cent - compared to other industries and companies.

And a very high share of the market.

In other words, compared to cars, razors are very cheap. A thirty-five per cent increase on the cost of a razor isn't nearly as much as the same increase on the cost of a car.

This paragraph sums up the profit situation Gillette has created for itself.

The next section (V.) tells some more about what the company did to design, make, and advertise the new product.

Remember that Manx was the name of the prototype for Mach 3.

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only sound foundation on which business leaders can build enduring, profitable growth." That this has become the reigning wisdom of the nineties is evident in Sara Lee's decision, last September, to sell off factories in order to concentrate on "building brands," because, as that company's C.E.O. said, "the investment community does not like asset-intensive companies."

But if branding were everything, companies like Disney and Gillette, with their enormously potent brands, wouldn't have fallen apart in the first half of the eighties. Disney found the way to recovery in its extraordinary animated films (which, in turn, supported an explosion in merchandising) and in the "imagineering" of its theme parks. Gillette's experience, too, demonstrates that Mullen's formulation is backward. To lay the foundation for business growth, it's hard to do better than invest in new technology, build factories, buy new machines. Strong brands are almost always effects, not causes, because sooner or later performance defeats positioning. The strongest companies are still the ones that can figure out how to put that layer of niobium between the steel and the carbon - and to do so at a rate of a billion blades a year.

VI. Excellence in manufacturing has become the most underrated ingredient in corporate success, and yet nothing distinguishes strong companies from weak ones like the ability to make goods efficiently and reliably. Intel's domination of the semiconductor industry, for instance, was built on the dramatic superiority of its production lines to those of competitors like Advanced Micro Devices. Toyota has carved away market share from American companies because its production system remains the best in the world. And, in shaving, Gillette rules because of decisions like the one it made to spend hundred of millions of dollars on machines that would allow it to mass-produce Mach 3 in an entirely new way.

Sara Lee, a foods company that used to specialize in desserts, no longer will make any products; it will have others do that while it focuses on brand names, advertising, and other marketing steps.

As you walk through Gillette's cavernous main factory, in South Boston - it has a giant sign outside that reads, "World Shaving Headquarters," and glows a pleasing blue at night - you might have to be careful not to bump into the bright-yellow vehicles, called A.G.V.s, for automatic guided vehicles, that are purposefully moving from machine to machine, picking up magazines full of cartridges or heading back to the warehouse to await further instructions. "It was a big concern of ours, how to prepare our people for the arrival of all this automation," one Gillette manager tells me as we make our way through one of the manufacturing floors. Then, in an inadvertent illustration of his point, he happens to bump into a passing A.G.V.; it stops dead and begins

bump into a passing A.G.V.; it stops dead and begins to emit a loud, plaintive squeal.

With the sound still ringing in my ears, I go on through the factory, past acres of machines where Sensor, SensorExcel, and Mach 3 are being made. Though the trend in business these days is to outsource as much production as possible, Gillette still makes all its blades and cartridges in-house. Giant coils of steel - each would be twenty miles long unspooled - stand on end. Sensor housing - cartridges that haven't had blades installed in them - are put in bins by machines moving in an oddly halting way, reminiscent of a sewing machine. Occasionally, a white light flashes on a machine, which means it's signalling to the central dispatcher to send out an A.G.V. for a pickup or delivery.

When Gillette was putting the production lines for Mach 3 in place (they became operational last fall), it built a giant plywood wall to separate them from the rest of the factory; workers on the "plywood ranch" had to sign strict confidentiality agreements. The most dramatic of the new machines is a sixty-foot-long DLC vacuum chamber. Before entering this chamber, fourteen thousand freshly sharpened blades on a giant spindle are given what one Gillette employee called "an atomic-level cleaning" in a Class 5000 clean room, populated by gowned and shower-capped workers. Inside the chamber, a high-voltage charge is sent between a sheet of carbon and the spindle of blades, hurling carbon atoms into the surface of the blade in a process called sputtering. "Our tolerances are on the order of the wavelength of visible light," an engineer says tersely.

out-source: hire another company to do the production instead of doing it yourself

The bunny-suited environment around the DLC chamber, though, is unique on the factory floor. For the most part, what is striking about the Mach 3 production lines isn't how high-tech they look but how sturdily functional, and how the machines still seem to belong to the Industrial Age. In Japanese car factories, the floors are clean enough to eat off; here the floors are just - well, fine places to put big, heavy machines on. The most important of these are the whirring, continuous-motion machines that are used to assemble the Mach 3 cartridges. The intermittent-motion Sensor machines stop and start before each task (hence the sewing-machine look); the languidly gliding Mach 3 machines appear to be doing much less work, but they're more than twice as fast. Interestingly, machines, like people, have learning curves, and in the next two years the speed of the continuous-motion machines is going to be steadily ratcheted up until they're turning out two

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million Mach 3 blades a day.

"When you get a new machine, you have to debug it - make little changes here and there," Frank Campatelli, who is in charge of engineering on the factory floor, says. "Then, when you solve those, you take it up another notch in speed and you find a whole new batch of things to fix. But we'll get this up to its top rate soon enough."

Mike Cowhig, the head of manufacturing, who has been standing next to me during this explanation, now leans in and says to me, "Then we're going to ask them to push past that."

Campatelli looks at him hard, wondering if he's serious.

He is. "I knew you didn't know that," Cowhig tells him breezily.

Standing in the middle of all these brand-new machines, I find it a little unsettling to realize that a few years from now they will be obsolete - or anyway, not good enough for Gillette's best product - and that a new plywood ranch will be constructed. Somewhere in the Reading lab, after all, Mach 3's successor is already in the pipeline. "We'll get a hell of a kick when we see the new razor on the shelves," John Terry told me. "But the truth is we're already preoccupied with what comes next."

Assignment

One of the most practical ways to show what you've learned is to explain it someone else. The reasoning is that you need to understand an idea pretty well before you can explain it to another person. In general, that's how this assignment will work.

More specifically, your assignment involves three main points: 1) using the magazine article you just read, "The Billion-Dollar Blade" 2) to illustrate ideas and information from the course 3) as you explain four economic concepts from this course.

Although not necessarily in this order, you'll have to do the following things to get ready:

1. Pick the person to whom you will explain the ideas. Pick someone you think will spend the time (which could be as short as 15 minutes but might go on longer) and help you out. An adult will work better in most cases because you'll be working with quite demanding ideas and examples. Please don't choose someone who has already taken this course or another high school or college basic economics course.

1. Select the four concepts you will explain. As a starting point, you can use the list that appeared early in Lesson 10. Here it is:

    Market Marketplace Consumer Consumer choice Competition Price

Value Capital Investment Commodity Commodity Pricing Self-interest

Transaction Market Forces Supply/Demand Demand/Price Curve Substitute

Product Differentiation Brand Loyalty Comparison Shopping Inflation

2. Select examples from "The Billion-Dollar Blade." Some of the terms on the list in #2 are used in the article or in the reader's notes. Other parts of the article illustrate ideas but don't use the words themselves, and you'll have to recognize when this happens.

1. You may want to think of other examples to use in your explanations so that not all of them come from the article.

Then explain the four concepts to the person you're working with. As you go through this process, notice - maybe keep a few notes for yourself - about how the explaining seems to go along, both for you and the other person. For instance, notice where you add something, change your mind, feel unsure, or feel confident. Notice how the other person reacts and what questions are asked.

After you've done the explanations, do a report to your teacher in which you

- **identify the person to whom you're explaining things and telling how you expected the process to go before you actually got started**
- **identify the concepts you picked and what from the article you used as examples**
- **summarize how you did the explanations and how the other person reacted; tell what went well and what didn't**
- **tell what, if anything, you'd do differently if you had to do this again**